

December 21, 2012

Mr. Brad Egan  
Project Manager  
Massachusetts School Building Authority  
40 Broad Street, Suite 500  
Boston, MA 02109

Re: Angier Elementary School: Newton, MA  
Preliminary Design Program Submission

Dear Brad,

Enclosed for your review is the Preliminary Design Program Submission package for the Angier Elementary School project in Newton, MA, which includes the following documents:

- (1) hard copy binder of the Preliminary Design Program report
- (1) CD with electronic .pdf file

We hereby certify that we have reviewed and coordinated the materials contained in this submittal, and that the submittal is complete. We also confirm that the District has approved the materials for submission to the MSBA.

Please contact me, Melissa Gagnon or Jeffery Luxenberg with any questions or comments.

Sincerely,



David Krawitz

cc: Katie DeCristofaro, MSBA  
Donna DiNisco, DiNisco Design Partnership  
Alex Valcarce, Newton Public Facilities  
Sandy Guryan Deputy Superintendent of Schools, Newton  
Robert Rooney, School Building Committee Chair and Newton COO  
Jeffery Luxenberg, Joslin, Lesser + Associates  
Stuart Lesser, Joslin, Lesser + Associates  
Melissa Gagnon, Joslin, Lesser + Associates

# **ANGIER ELEMENTARY SCHOOL NEWTON, MASSACHUSETTS**

**MASSACHUSETTS SCHOOL BUILDING AUTHORITY  
PRELIMINARY DESIGN PROGRAM SUBMISSION  
MSBA PROJECT Nº: 201102070005**



**21 DECEMBER 2012**



## TABLE OF CONTENTS

### PART 1: INTRODUCTION

- Facility Deficiencies
- Program Deficiencies
- MSBA Invitation
- Design Enrollment
- Capital Budget Statement Narrative
- Local Process
- Project Directory
- Project Schedule

### PART 2: EDUCATIONAL PROGRAM

- Grade and School Configuration Policies
- Class Size Policies
- School Scheduling
- Teaching Methodology and Structure
- Lunch Programs
- Technology Instruction Policies and Requirements
- Art, Music, Performing Arts
- Physical Education
- Special Education
- Vocational Education Program
- Transportation Policies
- Functional and Spatial Relationships
- Security and Visual Access Requirements

### PART 3: INITIAL SPACE SUMMARY

- Initial Space Summary
- Floor Plans

### PART 4: EVALUATION OF EXISTING CONDITIONS

### PART 5: SITE DEVELOPMENT REQUIREMENTS

- Site Access and Circulation
- Parking
- Facility Service
- Code Issues and Limitations
- Zoning Issues and Limitations
- Emergency Vehicle Access
- Utilities
- Athletic Fields / Outdoor Educational Spaces
- Site Orientation / Location Considerations

### PART 6: PROPOSED LIST / EVALUATION OF PRELIMINARY ALTERNATIVES

### PART 7: APPENDIX

- Newton Angier Elementary School Statement of Interest
- MSBA Feasibility Study Invitation
- Enrollment Certification
- Capital Budget Statement
- Project Directory
- Project Schedule
- Meeting Agenda and Minutes

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## PART 1: INTRODUCTION

## INTRODUCTION

The purpose of the Preliminary Design Program is to define the programmatic, functional, spatial, and environmental requirements of the educational facility necessary to meet the District's educational program, and perform the review and investigation required to clearly define the existing building deficiencies. Based on the District's educational program, we have identified and prepared the educational goals and programmatic space needs for the Newton Angier Elementary School project. The space needs along with an evaluation of existing conditions and site development requirements have formed our recommendation for an evaluation of alternatives upon which the most educationally appropriate and cost effective solution has been recommended.

## FACILITY DEFICIENCIES

The Angier Elementary School is the oldest school building in Newton still in service as a neighborhood elementary school. The original building built in 1919 was 40,000 GSF. In 1936, an addition of approximately 10,569 GSF was built. This added two classrooms and two toilet rooms on each floor, plus two bicycle rooms in the basement, which currently are the largest two classrooms in the school. Angier now contains 52,900 GSF and only 29,534 NFA, indicating that it is a very inefficient structure with a net-to-gross multiple of 1.79. Angier School has neither a cafeteria nor a multi-purpose room/auditorium. Students eat lunch at tables set up in a basement corridor. The original multi-purpose room with stage has been converted as the school library and special education spaces.

The building is not accessible. There is a stair lift that does not give access to all levels. Angier School has a courtyard that often fills with water. This courtyard is the same level as the gymnasium. Over the last 15 years, the gym floor has needed to be replaced three times due to flooding.

The mechanical and electrical systems at the school are original and not up to current codes. The building is heated with low pressure steam provided by two steam cast iron boilers. The boilers were converted from oil to natural gas in 2009. All of the systems in the building are past their useful life affecting comfort and security as well as teaching and learning. The boiler is inefficient affecting the comfort level of teachers and children. Heat is uneven. Some rooms are too hot; others are too cold. Ventilation is below standard and missing in some spaces.

Refer to PART 4: EVALUATION OF EXISTING CONDITIONS for a full report on the facility's existing conditions and recommended repairs.



## **PROGRAM DEFICIENCIES**

The facility does not have adequate space to accommodate the enrollment currently housed in the school. There are 19 classrooms with an average size 800 SF. Kindergartens classrooms have been converted from general classrooms and, at an average size of 800 SF, are undersized for kindergarten use. Only one kindergarten classroom has a bathroom within the classroom.

The existing library is considerably undersized at 1,944. The library is in the original multi-purpose / auditorium space and is shared with special education spaces by erecting a partition to divide the spaces.

The gymnasium is significantly undersized at 3,277 SF.

There is no cafeteria at the school. The students have lunch basement corridor. Prior to this “solution” the foodservice was received and prepared at the lowest level and without an elevator, the food was carried food up stairs to the upper levels—an unsafe and unsanitary situation. With ingenuity, the Angier administration has arranged a basement corridor into a “cafeteria” space.

Space for special education is currently at 2,880 SF and is inadequate for the school needs.

Many spaces have been either converted into educational spaces, or partitioned into two spaces to accommodate different educational programs, or located in entirely inappropriate spaces to provide the programs required:

- The undersized art and music classrooms are located in the basement level along with two inaccessible general classrooms that have high, basement windows for natural light and structural columns in the middle of the teaching spaces.
- Three storage closets without mechanical or fresh air have been converted to specialist spaces for OT, speech and special education; these spaces do not meet state building code requirements for occupied spaces.

Capacity issues have been addressed at Angier by having overcrowded classrooms and by using every conceivable space in the building (basement, storage rooms, and corridors included) to meet the educational needs of the students. Angier does not have modular classrooms due to the tight site constraints.

## **MSBA INVITATION**

The MSBA invited Newton Public Schools to conduct a Feasibility Study on April 9, 2012. Refer to the Appendix for the MSBA invitation for a Feasibility Study.

## **DESIGN ENROLLMENT**

As a result of a collaborative analysis with the MSBA of enrollment projections and space capacity needs for the proposed project at the Angier Elementary School, the City of Newton (District) agrees that the design of the proposed project at the School shall be based on an enrollment of no more than 465 students for grades K - 5.

A copy of the Enrollment Certification is included in the Appendix of this report.

## **CAPITAL BUDGET STATEMENT**

It is important for the MSBA and the district to have a complete understanding of the district's financial resources and ability to support a proposed school project. Per the MSBA requirements, the Capital Budget Statement will be submitted with the Preferred Schematic Report. Included in the Appendix in this report, is the City of Newton School Department Capital Improvement Plan for FY 2014-2018. Also included is the Capital Budget online form completed by the City.

The order of magnitude construction budget for the Angier Elementary School Project is anticipated to be in the range of \$28,000,000 to \$30,000,000 at this preliminary phase of the project. The Total Project Budget is therefore anticipated to be in the range of \$35,000,000 to \$37,000,000. The Capital Improvement

## **LOCAL PROCESS**

The local process began in November 2011 when the School District submitted a Statement of Interest to the MSBA for the Angier Elementary School. The MSBA invited the City of Newton to participate in a Feasibility Study for this project at the Authority's March 28, 2012 Board Meeting. The Angier School Building Committee (ASBC) was appointed by the Mayor of the City of Newton and was approved by the MSBA on March 7, 2012. The ASBC voted to appoint the City's Designer Selection Committee for the selection of the OPM on April 19, 2012.

At the February 21, 2012 Board of Aldermen meeting, the City of Newton voted to appropriate \$750,000 for the purpose of paying the costs of a Feasibility Study of the A.E. Angier Elementary School. Following that vote, the search for an Owner's Project Manager (OPM) began. The Town selected Joslin Lesser Associates (JLA) in June 2012. On June 29, 2012, the MSBA confirmed this selection and on July 9, 2012 JLA entered into a contract with the City of Newton.

The OPM then worked with the ASBC and MSBA to select a designer. The RFS for designer services was issued on August 1, 2012 and proposals were received on August 16, 2012. The ASBC in collaboration with the MSBA Designer Selection Panel reviewed the submitted proposals and interviewed two firms. At the October 2, 2012 meeting of the MSBA Design Selection Panel, DiNisco Design Partnership was selected as the Architect for the project.

The ASBC formed a Working Group comprised of representatives from the Angier School Building Committee, School Committee, School Department, Board of Aldermen, Mayor's Office and Public Facilities Department. This group meets with the project team regularly to expedite the review of important project issues. The project team has also met separately with the Superintendent, Department Heads and Curriculum Coordinators, Building Operations, Traffic and Planning, MBTA, Public Facilities and Principals from all District elementary schools. The project team and District also visited four area MSBA elementary school projects to evaluate precedents and gather design ideas.

In addition to the Angier School Building Committee, the District has appointed a Design Review Committee whose purview is broader than the Angier Elementary School project. To expedite approvals and ensure good communication, the ASBC and the DRC meet jointly to review Angier Elementary School issues. These public meetings, both past and future, are listed on the table on the following page. Note that there is typically a large public attendance at the School Committee meetings which always include lengthy public comment segment.

## PART 1 : INTRODUCTION

Meeting Date	Time	Group	Location	Topic
09/13/12	7:00PM	Angier School Building Committee/Design Review Committee	100 Walnut Street, Room 210	Introductions (JLA/ASBC/DRC), Review of Designer Selection Process and Schedule
10/18/12	5:00PM	Angier School Building Committee/Design Review Committee	100 Walnut Street, Room 210	Introductions (DDP), Construction Delivery Methods and Design Criteria Matrix
11/05/12	5:00PM	School Committee	100 Walnut Street, Room 210	Review Educational Program
11/15/12	5:00PM	Angier School Building Committee/Design Review Committee	100 Walnut Street, Room 210	Review Programming and Design Massing Alternatives
11/19/12	8:00PM	Angier School Building Committee/Design Review Committee	City Hall, Aldermanic Chamber	Presentation to the Board of Aldermen & School Committee
11/29/12	5:00PM	Angier School Building Committee/Design Review Committee	100 Walnut Street, Room 210	Review Site Strategy & Design Massing Alternatives
12/10/12	7:00PM	School Committee	100 Walnut Street, Room 210	Vote to submit educational program with PDP
12/20/12	5:00PM	Angier School Building Committee/Design Review Committee	100 Walnut Street, Room 210	Vote to authorize submittal of PDP
01/10/13	6:00PM	Angier School Building Committee/Design Review Committee	Newton North High School Library	Reception and Project Preview followed by a presentation to Board of Aldermen and School Committee
01/31/13	5:00PM	Angier School Building Committee/Design Review Committee	100 Walnut Street, Room 210	Approve Concept Design (Preferred Schematic Alternative)
02/13/13	6:00PM	Angier School Building Committee/Design Review Committee	Angier Elementary School	Public Forum

Meeting agendas and minutes are included within the Appendix as an attachment. Agendas, minutes, presentation and summary materials as they relate to the Angier Elementary School project are available locally for public review at the City of Newton Public Building website for the Angier Elementary School:

[http://www.newtonma.gov/gov/building/angier\\_school/committees/building.asp](http://www.newtonma.gov/gov/building/angier_school/committees/building.asp)

## PROJECT DIRECTORY

A project directory with contact information for representatives of all District stakeholders (e.g., Superintendent, Angier School Building Committee, School Committee, Design Review Committee, Designer and OPM is included in the Appendix as an attachment.

## PROJECT SCHEDULE

The current project schedule is as follows:

- Angier School Building Committee vote for Preferred Schematic:  
**January 31, 2013**
- Submission of Feasibility Study / Preferred Schematic:  
**February 14, 2013**
- MSBA Facilities Assessment Subcommittee Presentation:  
**February 27, 2013 or March 20, 2013**
- MSBA Board of Directors meeting for approval to proceed into Schematic Design:  
**April 3, 2013**
- Projected MSBA Board of Directors meeting for approval of Project Scope and Budget Agreement:  
**July 31, 2013**
- Projected City vote for Project Scope and Budget Agreement and full funding of the project:  
**August 2013**

A Projected Meeting and Milestone Schedule for Designer Selection, Feasibility and Schematic Design as well as a complete Preliminary Project Schedule are included in the Appendix as attachments.



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## **PART 2: EDUCATIONAL PROGRAM**

## **ANGIER ELEMENTARY SCHOOL EDUCATIONAL PROGRAM**

Newton Public Schools provides a rigorous educational program for elementary students in kindergarten through grade five. Angier School is a diverse school with a unique citywide integrated special education model, a growing population of English language learners, and a strong sense of community and support, celebrating its uniqueness through curriculum, arts and ongoing community service involving students and families.

Angier is home to a well-regarded citywide integrated program that services children across the district in Newton. The students in the Angier integrated program have been diagnosed with language based learning issues. This is a co-taught model staffed by a full-time regular education teacher, a special education teacher and a full-time intern from a local university. This team works to differentiate instruction with a focus on reading strategies across the curriculum. Specialized 1:1 reading instruction and all other academic supports are delivered in the classroom environment requiring additional classroom space that minimizes pull out services.

The English Language Learner Program (ELL) has seen significantly population increases over the past three years from 15 to 28 students to 63 students, representing 7% of the school population. Small groups of students meet with the ELL teacher several times a week both in and outside the classroom for direct English instruction.

Angier, similar to all Newton schools embrace inclusion, is a school where teachers collaborate to provide best practice instruction and proactive forms of intervention both in and outside the regular classroom. Teaming is central to how the Angier School community collaborates, and a spirit of inclusive community is core to the culture of the school. Professional Learning Communities and Response To Intervention blocks of time are regularly scheduled at Angier. Teachers meet weekly to assess data from formative assessments and to plan for lessons for Flexible Grouping Times.

The Newton Public Schools including the Angier Elementary School has long been a participating district in the METCO Program. There are currently 27 Boston students at Angier, with several new students enrolling in the program in grades K-1 each year, as 5<sup>th</sup> Grade students move to the middle school. These students and their families are fully included in the Angier community.

Angier's community service program is a valuable asset to the school culture. Annual community service and outreach programs include:

- Soles for Souls- collecting shoes that are sent overseas
- Haitian Relief-provide funds to an Haitian orphanage through our annual Read-A-Thon
- Food Collection for the Newton Food Pantry/Turkey Trot
- Fall Community Dinners
- Pancakes and P J's Breakfast
- Invention Invasion
- Spelling Bee for grades three through five
- World Cultures Event
- *Angier Celebrates 90 Years of Excellence in Teaching Children · 1921-2011 · 90th Anniversary*

## **GRADE AND SCHOOL CONFIGURATION POLICIES**

The Newton Public Schools provides educational programs for students in grades preschool through grade 12. As of October 1, 2012, there were 12,079 students enrolled in the Newton Public Schools. The fifteen elementary schools in Newton educate students from Kindergarten through Grade Five; the four middle schools serve students in grade 6 through 8; and the two high schools serves grades 9 through 12. The Angier School stands seventh in elementary enrollment size, out of fifteen total elementary schools. The Angier School enrollment totaled 408 students as of October 1, 2012. Students attend the Newton elementary and middle schools in their geographical neighborhoods.

The students at Angier School proceed to grade 6 at the Brown Middle School, along with students from the Countryside and Mason-Rice Schools. Students at Brown Middle School are served in grades 9 through twelve by Newton South High School.

An integrated preschool program is housed both at the Education Center (7 classrooms) and at the Lincoln Eliot Elementary School (4 classrooms). This program serves students with special needs as well as typically developing children.

## CLASS SIZE POLICIES

The Newton School Committee and the Newton Education Association recognize that class size is an important factor in quality education. While recognizing that a steadily increasing enrollment in Newton, coupled with limited space in our school buildings, the School Committee in their FY13 budget guidelines stated, “we ask the Administration to come up with creative staffing mechanisms that offset higher class sizes by improving the adult-student ratio and protect student learning, particularly in the core curriculum. Special efforts should be made to keep class size smallest in grades K – 2.” Therefore, attempts are made to keep class size close to the numbers listed below:

- Kindergarten- Grade 2: 1-22
- Grades 3-5: 1-25

Furthermore, the Integrated Program is offered at Angier School therefore one classroom per grade from grades 2 through 5 serves as the integrated classroom. The class size for the integrated classroom is slightly less than the other classes in each grade in order to best accommodate the students with special needs in the regular classroom. To maintain the student to teacher ratio in the integrated classroom, it is strongly recommended that there be one additional classroom to accommodate the need for a larger than normal grade size. Otherwise a larger than typical class would create a substantial burden on the teachers and students in the integrated classroom. This additional classroom will ensure the student to teacher ratio in the integrated classroom remains at the lowest level possible.

The number of required classrooms based on an enrollment of 465 students is as follows:

• Kindergarten	4 classrooms
• Grade 1	4 classrooms
• Grade 2	4 classrooms, including 1 integrated
• Grade 3	3 classrooms, including 1 integrated
• Grade 4	3 classrooms, including 1 integrated
• Grade 5	3 classrooms, including 1 integrated
• “Bubble” Classroom	<u>1</u> classroom
TOTAL	22 CLASSROOMS



## **SCHOOL SCHEDULING METHOD**

The Newton Public Schools has articulated specific instructional time allotments for elementary core subjects, which include reading, writing, mathematics, science, social studies and social curriculum. Specialist programs both enhance the core program and provide contractual preparation time for classroom teachers. These time allotments per week are as follows:

- Reading - 300-450 minutes
- Writing - 120-200 minutes
- Mathematics - 225-300 minutes
- Science/Tech Engineering - 90-120 minutes
- Social Studies - 45-120 minutes
- Social Curriculum - 30 minutes
- Art – 45 minutes (K, 3-5); 50 minutes (1-2)
- Music – 30 minutes (K-2, 4-5); 45 minutes including Recorder (3)  
Chorus – 45 minutes (4), 60 minutes (5)
- Physical Education, Health and Wellness - 60 minutes
- Instructional Tech/Library – 30 minutes (K-3); 45 minutes biweekly (4-5)

The Newton School Committee recognizes the importance of providing adequate numbers of specialist teachers in both elementary and secondary schools. Elementary specialist teachers are defined as Art, Music, Physical Education, and Library-Media. These programs are a vital component of the complete educational program that are both a value and expectation of the Newton Public Schools to offer all students. Appropriate and adequate space should be part of the design for these programs.

Under Article 43: “Elementary Preparation Time” of the collective bargaining agreement states that elementary teachers are entitled to a 30-minute duty-free and meeting free lunch period. In addition, elementary classroom teachers are scheduled for a minimum of 165 minutes of preparation time per week for teachers.

The current specialist sections at Angier Elementary are as follows:

- Art - Sixteen 45-50 minute blocks are taught by one Art teacher (1.0 FTE) while three 45-50 minute blocks are taught by a second part-time Art teacher (0.2 FTE).
- Music - Nineteen 30 minute blocks of general music, 4th and 5th grade chorus, 4th grade band lessons and the Angier band ensemble, all taught by one Music teacher (1.0 FTE), 4th grade string lessons and the Angier orchestra ensemble is taught by a one part-time (0.1FTE) string teacher.

- Band or String - In addition to General Classroom Music and 4th and 5th grade chorus, students in 4th grade may elect to take introductory band or string instrument. Instrumental lessons are small group, pullout lessons during the school day. Students in 5th grade or other grades who are already proficient on an instrument may elect to participate in the Angier band or orchestra. The ensemble groups each meet once per week for 45 minutes. Chorus is compulsory for 4th and 5th grade students and is scheduled within the school day. The 4th grade chorus runs for 45 minutes, once per week and the 5th grade chorus runs for 60 minutes, once per week. General Music class meets once per week for grades K-2 and 4-5. The 3rd grade meets for 45 minutes and includes compulsory instruction on the recorder.
- Physical Education, Health, and Wellness - Forty 30 minute blocks are taught by one Physical Education teacher (1.0 FTE) with five 30 minute blocks taught by a second part-time (0.2 FTE) Physical Education teacher.
- Library/Media - The Angier School Library is currently staffed for 4 days of the week (0.8 FTE). Currently two certified library teachers share the position in a 3 day/1 day split to provide consistency of staffing during the school day. The Library/Media teachers teach a total of sixteen 30 minute blocks during each school week. One library teacher teaches three 45 minute 5th grade block classes on a bi-weekly basis. Unscheduled blocks are designated as flextime and for technology assistance. Library Flextime is designed to provide unscheduled blocks of time during the school day for collaboration between the library teacher and the classroom teacher. Classes, accompanied by the classroom teacher, can use the library and its' resources for the purpose of research and inquiry in connection to the classroom curriculum. As the "first line of defense" Technology Assistance time, 20 minutes per day, is part of the library schedule and provides time for troubleshooting as well as one to one instruction for teachers in the management and use of technology tools and equipment.
- Instructional Technology - Instructional technology is integrated into the classrooms and is supported by a part-time Instructional Technology teacher (0.4 FTE). Currently, there is no substantially separate computer laboratory in Angier School. This is consistent with all elementary schools in Newton.

## **TEACHING METHODOLOGY AND STRUCTURE (E.G., ACADEMIES, DEPARTMENTS, HOUSES, TEAMS, ETC.)**

Angier School engages in professional learning communities (PLC). The school is organized in six teams kindergarten through grade five. These teams are comprised of regular education, special education and ELL teachers. They conduct the data cycle as a collaborative team to improve learning for all students in the grade level. The 60 minute PLC blocks support their ability to collaborate within the school day. The regularly scheduled 30-45 minute grade level intervention blocks provide direct instruction to small groups of students focusing on specific skill development in literacy and math. The teachers implement the Common Core standards, and the rigorous curriculum and assessment expectations set forth by the Newton Public Schools. Below is an overview of the general elementary curriculum, methods and assessments used by teachers.

### **LITERACY**

There is Explicit reading instruction in a variety of modes in every grade, continually engaging students at several distinct levels of challenge: an *instructional level*, just at the edge of the student's ability at that point in time, a *challenge level* offering harder material and an *independent level* using easier material to work on fluency and expression and to practice comprehension strategies.

Specific instructional components at each grade level include:

- Primary: interactive read aloud, shared reading, guided reading, independent reading, and phonics / word study.
- Intermediate: interactive read aloud, shared reading, guided reading (including strategy lessons, book clubs and literature circles), independent reading, and word study.

There is an emphasis on independent reading and the development of a lifelong reading habit; this includes nightly reading by all students in grades 1 - 8 and accountability by teachers through reading logs and folders.

Explicit writing instruction - *Units of Study, Lucy Caulkins; common writing prompts and scoring methods* that includes focused experiences in all genres, and both written and oral feedback from teachers:

- *All grades*: authorship experiences that emphasize conferring, revising, editing, publishing and celebrating creative efforts;

- Intermediate: focus lessons on a variety of rhetorical and stylistic issues including specific narrative and expository techniques, planning and organizing, rich language, elaboration; serious examination of sentence structure and sentence boundaries; emphasis on writing as a tool to enhance learning and thinking in all subject areas

Assessment practices include: running records and system-wide instruments (primary: Phonemic Awareness Assessment (MJ Adams); Phonics: Foundations Unit Assessments, Comprehension: *Guided Reading, Fountas and Pinnell; Comprehension Tool Kit, Stephanie Harvey; Spelling and Phonics: Words Their Way, Templeton, Johnston, Bear & Invernizzi; the Developmental Reading Assessment* Expressive Language assessment, formal and informal reading inventories (intermediate: Benchmark Assessment System; *Guided Reading, Fountas and Pinnell; Comprehension Tool Kit, Stephanie Harvey; Words Their Way, Templeton, Johnston, Bear & Invernizzi*).

Tier 2 Intervention includes: Fountas and Pinnell Intervention Program skills inventories

- Reading folder (should include log of all independent reading choices, small group book selections, reading responses, self-assessments and reflections, and, possibly, informal assessment data)
- Writing folder (should include a table of contents, all drafts, assessment instruments such as rubrics and writing prompts, self-assessments and reflections)
- Parent-student-teacher conferences that focus on collections of student work (portfolios, reading/writing folders, etc.) and progress over time relative to standards

Integration with Social Sciences and Science

- Social Sciences and ELA Integrated Units of Study developed by Newton Public Schools: Biography American Geography and History; World geography
- Science and ELA Integrated Units of Study developed by Newton Public Schools; Seeds of Science Roots of Reading

Although most of the reading and writing instruction takes place within the classroom environment, smaller work areas are necessary to facilitate individualized instruction, both in 1:1 and small group settings. Areas designed inside and outside the classroom are preferred.



## **MATH**

Students learn mathematics in whole class, small group, and partner configurations. The curriculum includes a variety of hands-on activities and many materials that require space to store in each classroom. There is a math specialist working with classroom teachers, who utilizes a small office as most time is spent coaching teachers in their classrooms.

## **SCIENCE AND TECHNOLOGY/ ENGINEERING**

Teachers implement hands-on science and engineering curriculum that requires the use of kit materials and student science notebooks. Each grade level uses water as a material in their curriculum so sinks are required. Additionally, space for storage of science materials and for set-up and use of the materials for investigation or experimentation are required. Storage for the science kits when not in use is needed.

## **SOCIAL SCIENCES**

Students engage in a history/social sciences curriculum that wherever possible integrates with the informational skills components of the new Mass Frameworks for English Language Arts (incorporating the Common Core Standards). It is important that there is wall space available for maps and educational posters/displays as well as ample storage capacity for books and other content materials.

## **SOCIAL/EMOTIONAL**

Open Circle, taught in grades K-2 by classroom teachers and Steps to Respect, taught in grades 3-5, represent social Emotional Curriculum. The Responsive Classroom program is also used in a number of classrooms. Classroom teachers present Responsive Classroom methodology daily in a 10-15 minute "Morning Meeting". No additional space is required to fulfill this component of the educational program however an area of the classroom will be zoned for morning meeting and other like functions.

## **ELL**

The ELL population at Angier has doubled in the past three years. There are currently 28 English learners enrolled supported by an ESL teacher (1.0 FTE) and an ESL aide (0.8 FTE). The model is push in and pull out depending on a student's English proficiency. Students at the entering and developing stage need a designated ELL learning classroom.

## **FOREIGN LANGUAGE**

The Newton Public Schools does not offer foreign language at the elementary level.

## **TEACHER PLANNING AND ROOM ASSIGNMENT POLICIES**

Below is a description of the ideal planning and room assignment policies as well as how the Angier School is currently organized due to space limitations:

The ideal grade level classroom formation would neighbor one another to offer close proximity for collaboration, communication and flexible grouping. Other core academic spaces such as art, music and library would ideally be within close proximity to the general classrooms to provide ease of transition from space to space as well as limit the transition time between classes to maximize the time spent in the classrooms.

Other core spaces such as the gymnasium and cafetorium are also used by the community therefore ease of access for the public is preferred. The cafetorium will ideally be located on the first floor with direct access to the play spaces for time before or after lunch.

Most of the special education instruction at the Angier School occurs within the regular education classrooms, however small instructional spaces for specialists and small group instruction are required. These spaces should be easily accessible from the general classrooms.

Currently there are three floors in Angier School with the bottom floor below grade referred to as the basement level. There are two classrooms located on the basement level, along with core subjects of art, music and physical education. During lunchtime, the basement hallway is converted into cafeteria space, housing up to 75 students in one long row of tables. This has required five lunch shifts with some classes needing to eat in classrooms, as the cafeteria is unable to provide adequate seating.

Kindergarten, Grade 1 and Grade 2 classrooms are organized on the main floor, but due to space constraints, one Grade 2 classroom is not in proximity of the others. One section of second grade is located on the basement level, which is less than ideal and is a result of the limitations imposed by current space. Currently, this classroom is the integrated second grade, which requires additional work areas to provide the individualized support for students identified as special needs. Grades 3 - 5 are housed on the third floor with one section of grade 4 separated from the other, also located on the basement level. As with the grade 2 classroom located in the basement, this is an integrated fourth grade that requires additional work areas within the classroom to provide individualized support. This configuration is less than ideal due to flexible grouping needs of the

students. Overall, Angier School has clustered classrooms in neighboring proximity of one another, and attempted to work within the space constraints posed by the architecture of the design.

Most of the special education instruction occurs within the regular education classrooms. There is one Learning Center available for pullout instruction. This space currently houses 2 Learning Center Teachers and 1 Inclusion Facilitator.

Additional small group space is interspersed around the school, including a speech/language office, an O.T. office, a psychologist office, and social worker area that is converted into small group student workspace when the part-time social worker is not there. These additional support staff members are essential to the teacher leadership, collaboration and instruction within the school.

The library resides in a space that was originally designed as an auditorium. It serves all the students in the school for both instruction and research. As the school population has increased, the library area has been redesigned to accommodate a number of instructional programs that now share the space. The ELL and Literacy Room are currently housed in the library.

The former stage area is now the ELL space, where the ESL teacher and ESL aide work with small groups of students. There are dividers in place to separate this work area from the library classes and activities, but these do not dampen sound.

The Literacy specialist and two literacy assistants work in a newly created space within the library, again visually separated by portable dividers, but these do not dampen sound.

The library also serves as the office area for a number of part-time staff members such as the RTI intervention aide, math coach and IT specialist. The library also serves as a computer area with 12 desktop computers that are used by students and teachers throughout the school day.

At Angier band, chorus and general music lessons take place in the music room. Strings instruction takes place in the staff lounge.

There is 1.0 FTE music teacher for general music and instrumental lessons and a 0.1 FTE music teacher for string lessons. Due to lack of space and fire code restrictions there is no opportunity for the entire school to gather for school assemblies. Currently, the gym is used for school assemblies that need to occur at two different times, one for grades K-2 and another for grades 3-5.

## **FLEXIBLE GROUPING**

Regular education teachers engage in flexible grouping methods to meet the instructional needs of their students and as determined by the professional learning communities. Grouping and regrouping methods take place weekly within classrooms and among grade level classrooms. Regular education, special education and ELL teachers collaborate seamlessly to provide tier one (general curriculum), tier two (strategic intervention) and tier three (intensive intervention) in the inclusive environment. Pullout instruction is provided for students who require it, based on their personalized instructional needs within tier two and tier three programming. There is shared responsibility among the faculty for all students' success. Grade level classrooms are organized within common hallways and adjacent locations. Close proximity is critical in order to achieve the requisite communication and collaboration for flexible grouping methods in a grade level PLC team. Current architectural aspects of Angier School preclude the necessary adjacencies to ensure team proximity.

## **LUNCH PROGRAMS**

There is no cafeteria in the existing Angier School. This poses significant challenges for students, scheduling, dining, transitions and staffing support. In the existing facility, Angier School students dine in a hallway in the bottom level of the school, where many transitions from art, music and physical education take place. Presently, Angier School runs five lunch sessions. This is due to the fact that Angier School does not have a cafeteria and consequently, students eat lunch in a constrained hallway space

Whitson's Culinary Group provides food service. Parents set up online lunch accounts and pre-pay meals. All students have a bar scan.

Angier School serves up to 400 student lunches daily. This is a point of service operation so students can select a choice and their account is adjusted. A student's account can indicate a specific allergic warning or set restrictions on choices by parents.

Currently, Angier School has a staff of one cook and two attendants who work in a reheat service kitchen. Five lunches are served each day, except Tuesday, when the students are dismissed at 12:30, and eat lunch at home. Lunch service begins at 11:00 a.m., with the last lunch concluding at 1:50 p.m. The number of students within each lunch ranges from 63 to 73 students. Lunch shifts are organized by individual grade level, except grades K and 1 who are combined due to time and space demands. Over half the lunch shifts have complex, overlapping transitions. Each lunch period utilizes one serving line, where students use a bar code system when purchasing their lunch. The current location is inadequate in terms of space and sound issues.

## **TECHNOLOGY INSTRUCTION POLICIES AND PROGRAM REQUIREMENTS (LABS, IN-CLASSROOM, MEDIA CENTER, REQUIRED INFRASTRUCTURE, ETC.)**

Angier School currently offers the following instructional technology:

- Grade Kindergarten
  - Elmo and LCD projector
  - 1 - 2 Mac desktop computer for student use per classroom
  - 2 iPads for student use per classroom
  - Printers - one in each room
- Grade 1
  - 2 shared iPads
  - Elmo and LCD projector
  - Printers - one in each room
  - 2 Mac laptop/desktop computers for student use per classroom
- Grade 2
  - Elmo and LCD projector
  - 8 iPads with charging cart for shared use
  - 2 Mac laptop computers for student use per classroom
  - 1 desktop computer for student use per classroom
  - Printers - one in each room
- Grade 3
  - Elmo and LCD projector
  - One mobile cart of 10 Mac laptop computers.
  - 2 Mac laptop computers for student use per classroom
  - Printers - one in each room
- Grade 4
  - Elmo and LCD projector
  - 5 Mac laptops per classroom
  - 2 Desktop computers for student use
  - Printers - one in each room
- Grade 5
  - Elmo
  - One mobile cart of 20 Mac laptop computers.
  - 2 Desktop computers for student use
  - 1 SMART Board in each classroom with speakers
  - Printers - one in each room
  - 8 iPads with charging cart for shared use

- Library: The library is equipped with an Elmo and an LCD projector on a cart. A shared color laser printer and a shared BW printer are located in the library. Students and teachers have access to 12 desktops. There is a current generation desktop at the circulation desk for checkout. The school library also has a Flip video camera. A 27" TV with a VCR/DVD player is housed in the school library. A laptop cart of 10 laptops is housed in the school library. The laptops are checked out daily for use in the second and third grade classrooms. Through the district's membership in the state library system the school library has access to an online encyclopedia (Encyclopedia Britannica) and InfoBits(Gale Database). Through the school library, all teachers and students have access to BrainPop/BrainPop Jr., Teachingbooks.net, Pebble Go Databases, Tumblebooks(eBooks)

There is an Acceptable Use Policy for students and staff in the district. All staff members participate in an annual, mandatory training regarding the district policy. Parents are asked to review the Acceptable Use Policy with their children, sign and return the district form to the main office. All students receive instruction in the Acceptable Use Policy during the first two months of the school year.

## **ART/ MUSIC / PERFORMING ARTS**

The Newton Public Schools has a vibrant visual and performing arts program. Within the week, all students at Angier take one, 45-50 minute visual art class, grades K-2 and 4-5 take one 30 minute general music class, 3rd grade has one 45 minute class, and 4th and 5th grades take chorus for 45 and 50 minutes each week. Instrumental music lessons (band and strings) are available for students 4th grade in weekly 30 minute group lessons. The school also provides Band and Orchestra ensembles for grade 5 students and others for one 45-60 minute rehearsal per week. In 2012-13, 45 4th grade students are taking band or strings lessons and another 27 students perform in the band or orchestra. There is one small music classroom at Angier with minimal storage space. Two instrumental music teachers serve Angier to teach lessons and lead ensemble rehearsals. The string teacher is at the school one day a week when lessons occur simultaneously with one teaching in the music classroom and the other teaching in the teacher lounge. One large music classroom accompanied by one smaller instrument storage room/small group lesson space is desirable to support the music program. The large classroom should provide ample open floor space for dance and movement activities as well as flip form risers for organized seating/standing for singing activities. The music classroom should be equipped with a console piano.

Angier hosts a variety of music concerts (choral and instrumental) throughout the school year. Occasionally, the students perform a variety show or musical theatre production. Angier does not have a stage for performances. Performances take place in the gymnasium, sometimes disrupting PE instruction. A cafetorium with an ample stage is a preferred location for performing arts. Built in steps or risers between the cafeteria floor and the stage is desirable for preventing the need to move flip form risers from the music classroom. A cafetorium also allows for the stage to be used for music/performance rehearsals before and after lunch as well as for school wide performances and presentations held for students and parents throughout the year. The cafetorium should be equipped with a console piano.

Angier currently has one small art classroom with the majority of the storage in open shelves surrounding the room and in the corridor outside the room, one sink, a kiln cage in one corner, and limited, obscured natural lighting. Angier needs an art classroom with ample natural light and with enough space for the largest class to sit a maximum of four students per table. The visual art classroom needs a separate storage closet for material/equipment storage as well as teacher preparation. The visual art classroom requires ample storage capacity within the classroom for students' artwork in process. The layout of the classroom should separate the worktables from preparation/sink areas. Multiple sinks at appropriate student height is required. A separate kiln room attached to the classroom is required. The visual art classroom needs a technology/media station (computers with photo/video software and Internet access) set-up to serve 4-6 students and away from paints and clay preparation. There should be ample space for whole demonstrations and exhibiting exemplary artwork on the walls.

In the corridor outside the visual art classroom as well as corridors throughout the school, there should be ample wall space designed for student artwork to be exhibited, including a 3D wall case centrally located in the school.

## **PHYSICAL EDUCATION AND OUTDOOR ACTIVITIES**

All students, K-5, participate in instructional, quality physical education program twice a week, for 30 minutes each class. The curriculum is presented in accordance with the Massachusetts Frameworks and the National Standards for Quality Physical Education however still falls short of the recommended time for physical education in elementary schools, which is 225 minutes per week. Angier has 1.2 FTE physical educators. Adapted Physical Education classes meet once a week in the gymnasium and one-on-one support services within the classroom are provided once week

In support of the importance for physical activity as a major necessity for student learning, the district has requires that all elementary students participate in recess in its state enforced Wellness Policy.

Outdoors, Angier has a number of play areas including an adjacent park maintained by the city Parks and Recreation department. This area contains a baseball diamond, three tennis courts, a full basketball court with a 2-square and a 4-square court, and open space for recess. This park is used mainly by the school during school hours, but is shared with local preschool programs and neighbors. A number of neighborhood athletic groups use the park when school is not in session. In addition, playground areas are available for student use on school property. The “Side Playground” is adjacent to the park and the school, considered the main playground for the school. There are 5 swings, 1 ADA compliant swing, a table chessboard with 3 chairs and a main playlot with slides, hanging apparatus, and climbing structures. The Tot Lot houses a variety of climbing structures, hanging apparatus, and slides for younger students to use. There is a blacktop area in front of the school that contains a basketball hoop, 2 foursquare courts, a map of the United States and a small grassy area with 2 benches. This is also the gathering area for families at arrival and dismissal. The configuration of a main playground area, similar to the “Side Playground”, a Tot Lot, a blacktop area, and an open play area are recommended in future designs for the school.

## **SPECIAL EDUCATION**

In 2011-2012 the percentage of students at Angier School with special needs was 19.8% or slightly below the district percentage of 20.2 (the state average is 17). This includes students in the Angier School district as well as students from other elementary schools in the district who are placed in one of the district-wide integrated classrooms grades two - five located at Angier.

Inclusion is a core belief and practice in the Newton Public Schools. This educational model challenges schools to meet the needs of all students by educating learners with disabilities alongside their non-disabled peers. The environment necessary to nurture and foster inclusion is built upon a shared belief system between general and special education, and a willingness to merge the talents and resources of teachers.

The mission of all of the schools in Newton is to maximize the potential and independence of each student. An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community.

Student Services are defined as school psychologists, inclusion facilitators, learning center teachers, social workers, speech/language pathologists, occupational therapists, physical therapists and nurses. In many cases these positions are shared among more than one school, but together they represent a team-based approach to supporting students and families in need at the elementary level in Newton.



Teachers at the Angier School support students through a variety of teaching models - co-teaching, team teaching, flexible grouping, small group instruction, and individualized instruction. Teachers believe that all learners should be provided differentiated forms of instruction and recognize that all students learn in different ways, rates, and timeframes. To that end, the Angier School continually adapts its staffing support, instructional methodologies, and assessment practices to meet student needs.

Tiered levels of instruction provide the regular education foundation of Angier School's continuum of service model. Angier Staff provides tiered levels of instruction to all students (tier one - the general classroom curriculum; tier two - strategic levels of instruction; tier three - intensive levels of instruction usually at the individualized level). If a student demonstrates academic and/or social/emotional/behavioral concerns despite thorough RTI procedures, the teacher refers the student to the building Teacher Support Team or the BEST Team. These teams support teachers implementing additional strategies.

Special education services at Angier School range from the least restrictive (for example, services provided in class) to a more restrictive (significant amount of multiple services out of the regular education classroom). Angier School offers rooms available for pullout small group and individual instruction provided by learning center teachers, and inclusion facilitators, who support inclusion for students with significant disabilities. Related service providers include speech/language pathologists, an occupational therapist, a physical therapist, a psychologist, and a social worker. Teachers of deaf/hearing impaired students and vision-impaired students also support students with these disabilities in accessing the curriculum.

The district-wide integrated program takes place in heterogeneous classes with regular education students enrolled at Angier and students with specific learning disabilities and/or communication disorders from other elementary schools throughout the district. Students with special needs are supported academically and socially through small group and individual teaching and modifications of the curriculum. The goal of the program is to address students' multiple needs by providing a comprehensive range of services and a consistent, structured, and nurturing environment throughout the school day.

Special education learning spaces are spread among regular education classrooms. The location of the classrooms allows staff to communicate and collaborate fluidly throughout the day on student needs and programming. The number of students in these classrooms is monitored to ensure a lower class size is maintained to allow the flexible learning requirements of the students.

In addition to the fully inclusive programs throughout Newton, the district has several substantially separate programs located in elementary, middle and high schools when the establishment of these programs more fully meets the educational needs of the students. One classroom in the Angier educational program is required for the potential location of one of the district wide programs. This classroom will address the needs of a group of students with similar learning requirements, while these students will also be included in the programs and school life at Angier. The classroom will provide flexibility for the ongoing programming to meet student needs in the current and future Angier population.

## **TRANSPORTATION POLICIES**

Newton Public Schools provides bus transportation for K-6 students residing more than 2.0 walking miles in their districted school. These students are transported at district expense. All students in Grades K-6, who live less than 2.0 miles from their school, must pay a user fee for transportation. Grades 7-12 must pay the fee regardless of distance or apply for financial assistance. K-6 students who live 1.5 miles or less from the school are in the walk zone. K-6 students who live between 1.5 and 2 miles from their districted school may opt to purchase a bus pass in accordance with the fee school payable in advance or in two installments (August 1st and February 1st.) The fee is \$310 per students with a family cap of \$620. Financial waivers are available. Special education transportation services are separate from regular bus transportation and are not affected. Distance from a districted school from a student's residence is measured by using the shortest walking route from the public way in front of a student's home to the nearest entranceway of the school. The City of Newton's Geographic Information System has calculated these distances. This information is mailed to each family although families are able to query the Newton Public Schools' website at [www.newton.k12.ma.us/transportation/](http://www.newton.k12.ma.us/transportation/) for the walking distance from their residence to school.

Angier Elementary School has two district buses and one Boston bus for METCO students. Students who are bused are dropped off in a live, bus drop-off lane between 8:20 a.m. and 8:30 a.m. daily. Monday, Wednesday, Thursday and Friday, school dismisses at 3 pm and on Tuesdays, school dismisses at 12:30 p.m. due to weekly professional development for teaching staff. Due to the fact that the Angier School site is limited in size, there is no live student drop-off or pick-up on the site. Many students walk or bicycle to school or parents park nearby on local streets and walk the remaining distance to the school with the students. The school staff provides safety and supervision on the school property during arrival and dismissal times. The city Police Department provides three crossing guards at in the vicinity of the school: Beacon Street in front of the Angier School; Beacon Street and Woodward Street and Windsor Road; and Woodward and Chestnut Streets.

## **FUNCTIONAL AND SPATIAL RELATIONSHIPS AND ADJACENCIES**

Angier School is the oldest Newton elementary school, having been built in 1921. It has served the Waban village in Newton as a neighborhood school for the past nine decades. Its location has made it a fixture in the community, tightly sited, but adjacent to the city owned Waban Playfield, the nearby Waban Center commercial area and Waban MBTA station. This neighborhood location has encouraged many families to walk with their children, gathering outside the school before arrival and at dismissal.

Originally, Angier School was built with an auditorium as the center of the building. As the population grew, the auditorium was replaced with a library, which has served as the “hub” of the building. The teachers and families have utilized this space for both learning and a community-gathering site. The stakeholders, although open to a different design, do not want to lose the feel of a school centered around a vibrant learning common with easy access from classrooms that are sited nearby in grade level clusters.

Functional and spatial relationships and adjacencies are key to the successful design of the new facility. These relationships between classrooms and programs in the school define the programmatic, functional, spatial, and environmental requirements of the educational facility and become the basis for the design at the next phase. Angier School depends on adjacencies for communication, collaboration, flexible grouping, and teaming. Providing learning areas both in and outside classrooms for small group work, individual tutorial spaces, and additional instructional break out rooms are critical in a school with a focus on integrated classrooms at grades 2-5, requiring specialized instruction and an emphasis on inclusive practices.

Community is a core value among students, staff and parents. Angier School is a warm and inviting place for children, staff and families. The PTO and parent volunteers are actively involved in before, during and after school programs. Angier requires a welcoming main office and community arrival space that accommodates the high morning influx of families who walk or get dropped off by parents at school arrival, as well as the active dismissal procedures. The students, faculty and parent community value and require a space for the entire school to gather, both as a common space to gather and celebrate learning and as an area to spotlight the arts through assemblies and performances. A functional dining facility with a reasonable capacity is a need of the school. After school, we provide space for a K-5 extended day program that operates until 6:00 p.m. Up to 60 students participate in this program daily Monday through Friday.

The Angier School is a relationship-oriented community, that practices and values inclusive partnerships and mutual support in all aspects of the school community. This is the overall spirit of the school that will drive the design of the facility.

## **SECURITY AND VISUAL ACCESS REQUIREMENTS**

Angier Elementary School requires a safe main driveway entrance access to the school site with safe secondary access for emergency needs. Angier Elementary School also requires:

- Access Control utilizing a security access fob device by authorized staff.
- Visual Security of the main entrance utilizing a video monitoring system that will be monitored at the school secretary's desk.
- Safe staff parking
- Safe visitor parking
- Safe vehicular student drop off and pick up areas without crossing traffic (called a "blue zone" in Newton)
- Safe pathways for pedestrians and bicyclists coming from varied directions to the school
- Safe bus access systems that do not interfere with drop off and pick up traffic
- Safe recess grounds and play fields that can be properly supervised by staff and protected from vehicle traffic
- Visual access of the driveway and parking lots
- Safe access for kitchen, facility and shipping / receiving separate from school traffic to the main entrance
- Safe and appropriate access to the perimeter of the building and play fields

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## **PART 3: INITIAL SPACE SUMMARY**

### INTRODUCTION

The initial space summary has been completed for the design enrollment of 465 students for Kindergarten through grade 5<sup>th</sup> per the MSBA Enrollment Certification. The Space Summary Template deviates slightly from the MSBA Guidelines as follows:

#### Core Academic Spaces

- 1 additional classroom is required due to the class size policy which incorporates the Special Education Integrated Program. Please refer to PART 2 I EDUCATIONAL PROGRAM for detailed information.
- 1 additional classroom is required when a large class must be accommodated on the upper floors as the class moves from grade to grade. Please refer to PART 2 I EDUCATIONAL PROGRAM for additional detailed information.

#### Special Education

- The Special Education Program has integrated and pull out programs. Although most of the special education is delivered within the general classroom the need for smaller spaces for the Tier 2 and Tier 3 components is a necessity. Please refer to PART 2 I EDUCATIONAL PROGRAM for additional detailed information on the Special Education Program.

#### Cafeteria

- All options have reduced the NFA for the cafeteria as the District will provide three (3) seatings / periods for lunch.

#### Custodial & Maintenance

- While the main components of Custodial & Maintenance comply with MSBA Guidelines, the District does not believe a workshop is required based on how they provide these services.
- Due to the increasing technology based components of building automation systems and building technology a larger Network/Telecom Room is required to accommodate the equipment to serve the entire building.

We welcome the opportunity to meet with the MSBA to review the program requirements of the Angier Elementary School.

### ***Proposed Space Summary- Elementary Schools New Construction***

ANGIER ELEMENTARY SCHOOL	Existing Conditions		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals
<b>CORE ACADEMIC SPACES</b>			<b>15,150</b>
<i>(List classrooms of different sizes seperately)</i>			
Pre-Kindergarten w/ toilet			
Kindergarten w/ toilet (existing w/out toilet)	686	1	686
Kindergarten w/ toilet (existing w/out toilet)	770	1	770
Kindergarten w/ toilet (existing w toilet)	800	1	800
Kindergarten w/ toilet (existing w/out toilet)	966	1	966
General Classrooms - Grade 1-5	770	6	4,620
General Classrooms - Grade 1-5	740	5	3,700
General Classrooms - Grade 1-5	800	2	1,600
General Classrooms - Grade 1-5	1,004	2	2,008
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
<b>SPECIAL EDUCATION</b>			<b>2,880</b>
<i>(List rooms of different sizes seperately)</i>			
Self-Contained SPED			
Self-Contained SPED - toilet			
Resource Room			
Small Group Room / Reading			
Substantially Separate Classroom			
Learning Centers (K-2; 3-5)	740	1	740
Breakout Rooms (individual instruction)	140	1	140
ELL Program	363	1	363
OT/PT	227	1	227
Quiet Room			
Speech + Language (6 students)	140	1	140
Reading Program / Literacy Room	623	1	623
Inclusion Facilitators (office for 6 adults)			
Literacy Specialist (Office + teaching area for 6 stu.)			
Math Coach			
IEP Conference Room - (12 adults)			
Psychologist (office, testing, therapy, storage)	291	1	291
Social Worker (Office, testing, conferences)	356	1	356
<b>ART &amp; MUSIC</b>			<b>1,554</b>
Art Classroom - 25 seats	836	1	836
Art Workroom w/ Storage & kiln			
Music Classroom / Large Group - 25-50 seats	718	1	718
Music Practice/ Ensemble (Groups 4 - 10 students)			
Music Practice/ Ensemble (Groups 4 - 10 students)			
<b>HEALTH &amp; PHYSICAL EDUCATION</b>			<b>3,769</b>
Gymnasium	3,277	1	3,277
Gym Storeroom	156	2	312
Health Instructor's Office w/Shower & Toilet	180	1	180
<b>MEDIA CENTER</b>			<b>1,944</b>
Media Center/Reading Room	1,944	1	1,944
<b>DINING &amp; FOOD SERVICE</b>			<b>870</b>
Cafeteria/Dining	0	0	0
Stage - existing used as SPED	0	0	0
Chair/Table/Equipment Storage	0	0	0
Kitchen	352	1	352
Staff Lunch Room (1/3 of staff = 60 staff/3)	518	1	518
<b>MEDICAL</b>			<b>350</b>

[illegible][illegible]

Proposed Space Summary- Elementary Schools  
 New Construction

ANGIER ELEMENTARY SCHOOL	Existing Conditions		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals
Medical Suite Toilet Nurses' Office/Waiting Room Examination Room / Resting	350	1	350
ADMINISTRATION & GUIDANCE			1,548
General Office / Waiting Room/Toilet	575	1	575
Teachers' Mail and Time Room	included above		
Duplicating Room	included above		
Records Room	included above		
Principal's Office w/ Conference Area Principal's Secretary / Waiting Assistant Principal's Office	230	1	230
Supervisory / Itinerant Teachers / Extended Program Conference Room	611	1	611
Guidance Office (Social Worker / Pyschologist) Guidance Storeroom	0	0	0
	0	0	0
Teachers' Work Room	132	1	132
CUSTODIAL & MAINTENANCE			1,469
Custodian's Office	263	1	263
Custodian's Workshop			
Custodian's Storage	75	1	75
Recycling Room / Trash			
Receiving and General Supply	443	1	443
Storeroom	344	2	688
Network/Telecom Room			
OTHER			0
Other ( <i>specify</i> )			
Total Building Net Floor Area (NFA)			29,534
Proposed Student Capacity/Enrollment			
Total Building Gross Floor Area (GFA) <sup>2</sup>			52,940
Grossing factor (GFA/NFA)			1.79

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals
			60	1	60	60	1	60
			250	1	250	250	1	250
			100	2	200	100	2	200
		0			2,318			2,318
			383	1	383	383	1	383
			100	1	100	100	1	100
			150	1	150	150	1	150
			110	1	110	110	1	110
			300	1	300	300	1	300
			Included in General Office			Included in General Office		
			125	1	125	125	1	125
			450	1	450	450	1	450
			200	1	200	200	1	200
			0	0	0	0	0	0
			0	0	0	0	0	0
			250	2	500	250	2	500
		0			1,880			1,880
			150	1	150	150	1	150
			0	0	0	0	0	0
			375	1	375	375	1	375
			400	1	400	400	1	400
			255	1	255	255	1	255
			400	1	400	400	1	400
			300	1	300	300	1	300
		0			0			0
		0			49,973			49,973
								465
								74,960
								1.50

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
60	1	60	
250	1	250	
100	2	200	
		2,330	
383	1	383	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
120	1	120	
250	1	250	
150	2	300	
35	1	35	
383	1	383	
		2,065	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
255	1	255	
310	1	310	
200	1	200	
		0	
		48,906	
		465	
		74,749	
		1.53	

<sup>1</sup> Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

<sup>2</sup> Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architect Firm: DiNisco Design Partnership

Name of Principal Architect: Leno Filippi

Signature of Principal Architect:

Date: 12/20/12



***Proposed Space Summary- Elementary Schools  
Renovation/Addition***

ANGIER ELEMENTARY SCHOOL	Existing Conditions		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals
<b>CORE ACADEMIC SPACES</b>		<b>19</b>	<b>15,150</b>
<i>(List classrooms of different sizes seperately)</i>			
Pre-Kindergarten w/ toilet			
Kindergarten w/ toilet (existing w/out toilet)	686	1	686
Kindergarten w/ toilet (existing w/out toilet)	770	1	770
Kindergarten w/ toilet (existing w toilet)	800	1	800
Kindergarten w/ toilet (existing w/out toilet)	966	1	966
General Classrooms - Grade 1-5	770	6	4,620
General Classrooms - Grade 1-5	740	5	3,700
General Classrooms - Grade 1-5	800	2	1,600
General Classrooms - Grade 1-5	1,004	2	2,008
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
General Classrooms - Grade 1-5			
<b>SPECIAL EDUCATION</b>			<b>2,880</b>
<i>(List rooms of different sizes seperately)</i>			
Self-Contained SPED			
Self-Contained SPED - toilet			
Resource Room			
Small Group Room / Reading			
Substantially Separate Classroom			
Learning Centers (K-2; 3-5)	740	1	740
Breakout Rooms (individual instruction)	140	1	140
ELL Program	363	1	363
OT/PT	227	1	227
Quiet Room			
Speech + Language (6 students)	140	1	140
Reading Program / Literacy Room	623	1	623
Inclusion Facilitators (office for 6 adults)			
Literacy Specialist (Office + teaching area for 6 stu.)			
Math Coach			
IEP Conference Room - (12 adults)			
Psychologist (office, testing, therapy, storage)	291	1	291
Social Worker (Office, testing, conferences)	356	1	356
<b>ART &amp; MUSIC</b>			<b>1,554</b>
Art Classroom - 25 seats	836	1	836
Art Workroom w/ Storage & kiln			
Music Classroom / Large Group - 25-50 seats	718	1	718
Music Practice/ Ensemble (Groups 4 - 10 students)			
Music Practice/ Ensemble (Groups 4 - 10 students)			
<b>HEALTH &amp; PHYSICAL EDUCATION</b>			<b>3,769</b>
Gymnasium	3,277	1	3,277
Gym Storeroom	156	2	312
Health Instructor's Office w/Shower & Toilet	180	1	180
<b>MEDIA CENTER</b>			<b>1,944</b>
Media Center/Reading Room	1,944	1	1,944
<b>DINING &amp; FOOD SERVICE</b>			<b>870</b>
Cafeteria/Dining	0	0	0
Stage - existing used as SPED	0	0	0
Chair/Table/Equipment Storage	0	0	0
Kitchen	352	1	352
Staff Lunch Room (1/3 of staff = 60 staff/3)	518	1	518
<b>MEDICAL</b>			<b>350</b>

[illegible]

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
	<b>20</b>	<b>20,000</b>	
1,200		-	1,100 SF min - 1,300 SF max
1,200	4	4,800	1,100 SF min - 1,300 SF max
950	16	15,200	900 SF min - 1,000 SF max
		<b>5,540</b>	
950	4	3,800	8% of pop. in self-contained SPED
60	4	240	
500	2	1,000	1/2 size Genl. Clrm.
500	1	500	1/2 size Genl. Clrm.
		<b>2,575</b>	
1,000	1	1,000	assumed schedule 2 times / week / student
150	1	150	
1,200	1	1,200	assumed schedule 2 times / week / student
75	3	225	
		<b>6,300</b>	
6,000	1	6,000	6000 SF Min. Size
150	1	150	
150	1	150	
		<b>2,763</b>	
2,763	1	2,763	
		<b>6,824</b>	
3,488	1	3,488	2 seatings - 15SF per seat
1,000	1	1,000	
355	1	355	
1,765	1	1,765	1600 SF for first 300 + 1 SF/student Add'l
216	1	216	20 SF/Occupant
		<b>510</b>	

Proposed Space Summary- Elementary Schools  
 Renovation/Addition

ANGIER ELEMENTARY SCHOOL	Existing Conditions		
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals
Medical Suite Toilet Nurses' Office/Waiting Room Examination Room / Resting	350	1	350
ADMINISTRATION & GUIDANCE			1,548
General Office / Waiting Room/Toilet	575	1	575
Teachers' Mail and Time Room	included above		
Duplicating Room	included above		
Records Room	included above		
Principal's Office w/ Conference Area			
Principal's Secretary / Waiting	230	1	230
Assistant Principal's Office			
Supervisory / Itinerant Teachers / Extended Program	611	1	611
Conference Room			
Guidance Office (Social Worker / Pyschologist)	0	0	0
Guidance Storeroom	0	0	0
Teachers' Work Room	132	1	132
CUSTODIAL & MAINTENANCE			1,469
Custodian's Office	263	1	263
Custodian's Workshop			
Custodian's Storage	75	1	75
Recycling Room / Trash			
Receiving and General Supply	443	1	443
Storeroom	344	2	688
Network/Telecom Room			
OTHER			0
Other (specify)			
Total Building Net Floor Area (NFA)			29,534
Proposed Student Capacity/Enrollment			
Total Building Gross Floor Area (GFA) <sup>2</sup>			52,940
Grossing factor (GFA/NFA)			1.79

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals	ROOM NFA <sup>1</sup>	# OF RMS	area totals
0	0	0	60	1	60	60	1	60
0	0	0	250	1	250	250	1	250
0	0	0	100	2	200	100	2	200
		0			2,700			2,700
0	0	0	400	1	400	400	1	400
0	0	0	200	1	200	200	1	200
0	0	0	150	1	150	150	1	150
0	0	0	200	1	200	200	1	200
0	0	0	350	1	350	350	1	350
0	0	0	Included in General Office			Included in General Office		
0	0	0	150	1	150	150	1	150
0	0	0	450	1	450	450	1	450
0	0	0	300	1	300	300	1	300
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	250	2	500	250	2	500
		2,120			0			2,120
150	1	150	0	0	0	150	1	150
0	0	0	0	0	0	0	1	0
375	1	375	0	0	0	375	1	375
895	1	895	0	0	0	895	1	895
Included above			0	0	0	Included above		
400	1	400	0	0	0	400	1	400
300	1	300	0	0	0	300	1	300
		0			0			0
		30,040			19,035			49,075
								465
		48,575			35,745			84,320
								1.72

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
60	1	60	
250	1	250	
100	2	200	
		2,330	
383	1	383	
100	1	100	
150	1	150	
110	1	110	
375	1	375	
125	1	125	
120	0	-	
120	1	120	
250	1	250	
150	2	300	
35	1	35	
383	1	383	
		2,065	
150	1	150	
375	1	375	
375	1	375	
400	1	400	
255	1	255	
310	1	310	
200	1	200	
		0	
		48,906	
		465	
		74,749	
		1.53	

<sup>1</sup> Individual Room Net Floor Area (NFA)

Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

<sup>2</sup> Total Building Gross Floor Area (GFA)

Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architect Firm: DiNisco Design Partnership

Name of Principal Architect: Leno Filippi

Signature of Principal Architect:

Date: 12/20/12

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## **PART 4: EXISTING CONDITIONS**



## Angier Elementary School

### Property Data

Address: 1697 Beacon Street  
Newton, MA 02468

Use: Elementary School  
(Grades K-5)

Site Area: 1.9 Acres

Date Built: 1919

Renovations: Addition 1936 (6 classrooms  
+ Toilets and Storage)

Occupancy Group: E - Educational

Construction Class: 1 HR Protected

Zoning District: Public (SR2 – Residential: Abutting)



### Building Data

No. Floors: Three floors, ½ level down

Gross Area 52,940 SF

Foundation/Frame: Spread footings, steel columns, and steel beams (protected) with cast-in-place concrete floor slab and roof deck, masonry bearing and non-bearing walls.

Exterior Walls: Brick with concrete masonry unit backup, concrete trim.

Roofing: Built-up tar and gravel with copper flashing.

Window Systems: Aluminum with insulated glazing.

Exterior Doors: Aluminum with plastic facing and painted steel.

Interior Doors: Solid core wood, natural finish. Glazed at corridors, stairs, and other vision areas.

Interior Walls Painted masonry, glazed masonry, glazed tile and painted plaster on metal lath.

Floors: Vinyl tile typical. Concrete in mechanical area and stairs, ceramic tile in toilets, carpet in corridors and wood gymnasium floor.

Ceilings: Suspended lay-in acoustical tile in classrooms and corridors, painted plaster on metal lath.

Sprinklers: None

HVAC: Steam – Gas Fired

Sewerage: City Sewers

Electric: 120/208V 3 phase

### **Introduction**

The purpose of this section is to report the physical conditions of the existing building in order to identify the maintenance needs, capacity of existing systems and the potential for expansion. Information has been obtained from historic drawings, previous reports on-site inspection, interviews with maintenance and custodial staff. No test openings or intrusive investigations have been performed to date. Hazardous Materials (ACM, LBP, etc.) testing is scheduled for the week of December 26, 2012.

### **General**

The Angier Elementary School is one of fifteen (15) elementary schools in the Newton Public School system. It is located on an approximate 1.9 acre site 0.1 miles from Waban "T" station bounded by the MBTA Green Line tracks, Beacon Street and Angier Park, 4.83 acres to the northwest of the school site, which is designated as Article 97 open space.

**SITE**

The site is approximately 2 acres in area located on the north side of Beacon Street in the Waban section of Newton. The site contains the Angier Elementary School building located toward the rear portion of the site. The abutting properties consist of the Parish of the Good Shepherd Church on the east; an active railroad line runs along the rear property line; the Waban Park (a Newton public park facility) is to the northwest; and a single family residential home is located to the southwest. The majority of the site is relatively level from the front to the rear of the back parking lot, and then slopes steeply down approximately 15 feet to the abutting railroad right-of-way. The slope is wooded and a chain link fence runs along the top of the steep slope at the north side of the parking area.

Access to the site is from Beacon Street. There is a one-way bus drop off driveway that shares the entry with the Church driveway at the southeast corner of the site and exits back onto Beacon Street. A driveway curb cut near the southwest corner of the site provides access to the 41 car parking lot in the southwest portion of the site. A driveway continues around the back of the school from the main parking lot to the rear of the building where parking for an additional 10 cars is provided. All parking areas and driveways are paved with bituminous pavement.

There is a bituminous paved plaza at the front of the building that is utilized as a paved play space. The area between the paved plaza and the bus loop contains walkways and vegetated open space. There is a large play space to the east of the building with play equipment and benches in the treed portion at the northeast corner. There is also a raised play area with play equipment located to the northwest of the building that appears to be mostly on the Waban Park parcel.

Primary Issues

- There are ADA and MAAB code issues on the site that would require the redesign of some vehicular paving and curbing and pedestrian paving to make the site accessible.
- Accessible ramps do not exist in some areas where they are required and accessible ramps at the site are not to the current ADA and MAAB code.
- Neither of the two (2) accessible parking spaces complies with the dimensional, aisle and signage requirements of the current ADA and MAAB code. Three (3) spaces are required including one space designated for van parking.

Site Context

The school site is located north of Beacon Street in the Waban neighborhood of Newton. A church to the east, the MBTA tracks to the north and a single family home and the Waban Park located to the west abut the school property.

The site is generally flat with the exception of a steep 15' slope down to the MBTA tracks. This steep slope is on the school property. If there is a need to utilize this land, a wall will need to be constructed adjacent to the MBTA property.

### Site Access – Vehicular

School parking is located off of Beacon Street with access from a single entry/exit. Emergency vehicles can also access the school site from the access drive to the adjacent church and access three (3) sides of the school.

Parent drop off occurs along Beacon Street. Buses drop-off and pick-up is located in a driving lane in front of the school, separated by a fence and landscaping and parallel to Beacon Street.

There are approximately 43 parking spaces on the site of which two (2) are designated as accessible parking spaces. MAAB and ADA require three (3) accessible spaces including one (1) van accessible space. Neither of the two (2) accessible parking spaces complies with the dimensional, aisle and signage requirements of the current ADA and MAAB code.

The site is flat and all pedestrian paving areas appear to meet the minimum slope requirements as required by ADA and MAAB.

Curbing is a combination of vertical granite and sloped granite in fair condition.

The vehicular paving is in poor condition.

### Site Access – Pedestrian

Sidewalks and paving connect the school property to the neighborhood sidewalks.

Sidewalks are a combination of concrete and bituminous paving. The pedestrian paving is in poor condition.

All doorways have a step down to grade, posing a barrier for accessibility.

### Play Areas

Two (2) playground areas, one to the west (on the Waban Park property) and the other to the east are located at the school. The play areas appear to be fairly new and could potentially be salvaged and reused if desired by the school and if they meet the current MAAB and ADA codes. Students utilize the outfield area of the adjacent Waban Park as a free play area.

There is a basketball hoop located at the front of the school.

### Landscape

A variety of deciduous and evergreen trees are located in the front of the school, none of which are specimen trees. Two (2) white pine trees screen the view of the school from Beacon Street.

Six (6) deciduous trees are located along the shared property line of the single family home to the west, creating a buffer. One tree is growing at an angle into the school property. This tree should be removed.

Dense deciduous trees buffer the school from the MBTA tracks located to the north.



A grove of approximately twelve (12) oak trees are scattered amongst the play area to the east of the school. If there is construction in the area, efforts should be made to protect and save four (4) of these trees, which are located along the shared property line with the church.

Yvonne's Garden, a school garden with raised planters and a birdhouse, is located in front of the school. Garden tools and signs are stored in a small wood storage bench.

#### Sport Fields

A public softball field and soccer field are located within Angier Park to the west of the school, which the school shares. The lawns are in fair condition. There is no accessible walk to the fields.

Public basketball and tennis courts are located to the west of the school as well.

#### Miscellaneous

Pole mounted cobra head light fixtures illuminate the entry drive and the parking lot to the west of the school. There is one spotlight on a telephone pole on the site adjacent to the parking lot. Other lights are located on the building to provide site lighting.

Two (2) dumpsters are located on the property as well as a few large rolling trash barrels.

All chain link fencing on the property is in poor condition. A white screen fence along the shared western property line with the single family home appears to have been installed by the neighbor.

Bike racks for approximately fifteen (15) bicycles are fair condition.

All of the benches and table are in fair/poor condition and made out of metal or composite wood/plastic. The composite wood/plastic is sagging.

#### Memorials

- Picnic table in the east playground in fair condition dedicated to: Debby Horwitz.
- Granite marker at Yvonne's Garden dedicated to: Yvonne Oppenheim.
- Birdhouse: Gift of the class of 2007 dedicated to Mark Sweetland.
- Table and chairs in fair condition located in the west playground from the 5<sup>th</sup> grade class of 2004.
- Angier Playground May 11, 2005 bronze plaque located on the western façade of the building.

## GEOTECHNICAL INVESTIGATIONS

### Background

WEA understands that the City of Newton plans to construct a new elementary school at the site of the existing Angier Elementary School in the Waban section of Newton, Massachusetts. At the time that this report was prepared, there were several building footprint options and siting, however topographic plans and building loads were not available. This report was developed based on Option B.5 with the footprint shown in Figure 1. Even though the final selected footprint and location might vary, the site is small therefore the building footprint should not vary too far from the location of the completed explorations. Likewise, the final finish floor grade has not been determined and WEA was asked to use a ground floor grade equivalent to the existing ground surface grade at the site. The site grade is relatively level and at the time we prepared this report; the topographic survey had not been completed. Likewise, structural loads were not available. Therefore, WEA prepared this report based on typical conditions for this type of structure.

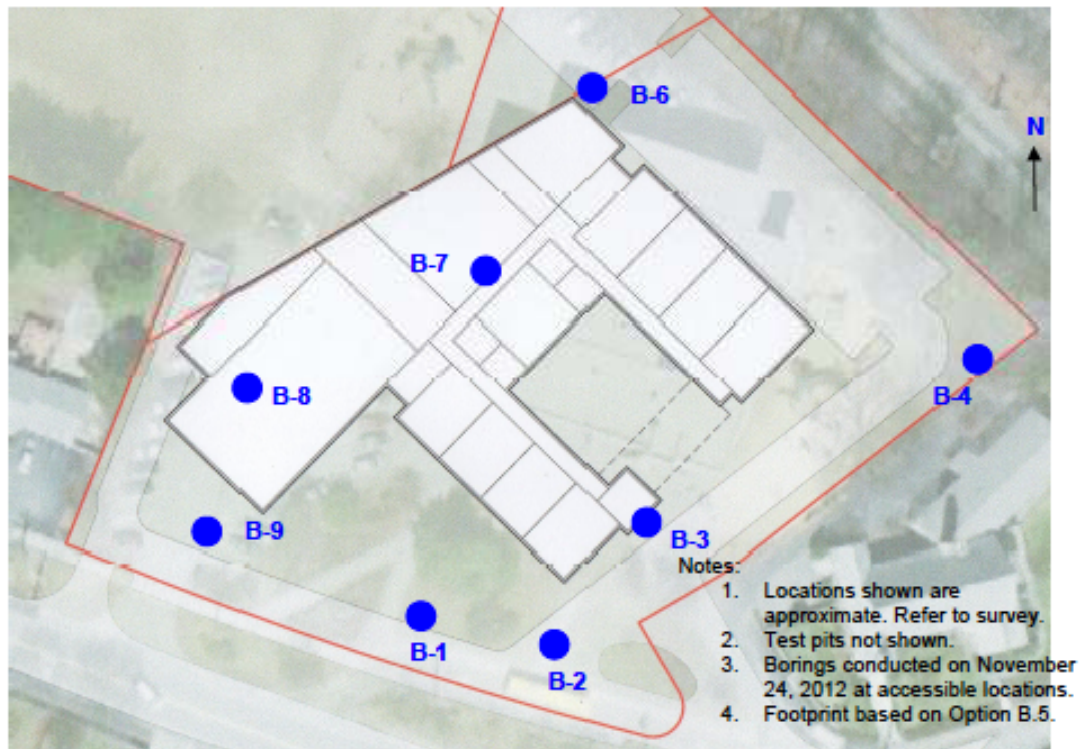
The site is currently occupied by the Angier School, which sits to the rear of the site. The site is level and abuts Beacon Street at approximately the same grade. Beyond the building footprint, the site is approximately half paved with the second half being playground and landscaped areas. WEA understands that the athletic field located to the northwest of the site is not available for development. At the rear of the site (north), the land slopes sharply down approximately 15 feet to 20 feet to the MBTA Green Line trolley tracks and a retaining wall might be constructed to expand the parking area. The existing building has a ground floor approximately 4 feet lower than the adjacent site grade.

### Subsurface Explorations

Soil Exploration Corporation of Leominster, Massachusetts conducted 8 soil test borings on November 24, 2012 at the approximate locations shown in Figure 1, Exploration Location Plan. Originally the program included B-5 but since its location was directly adjacent to a test pit excavation excavated on the same day, it was deleted from the program. Prior to beginning work the soil test borings were marked by WEA based upon finding accessible locations around the existing building. Since the site is small, and the accessible locations for explorations are limited, WEA believes that the program as drilled will provide sufficient subsurface data for alternate footprint locations.

Boring B-3 extended to a depth of 43 feet below ground surface (BGS) where it terminated at refusal to further penetration without coring. The remaining borings extended to a depth ranging from 26 feet to 27 feet BGS. These borings terminated in fine sand. As stated previously, boring B-5 was eliminated from the exploration program because of the nearby location of a test pit.

Soil samples were retrieved at the ground surface and at 5-foot intervals to provide material for the visual classification shown on the logs. The samples were retrieved using a standard split spoon sampler driven with an automatic hammer at each sampling depth and the sampler was driven the distances shown of the logs. The number of hammer blows required to drive the sampler into the soil in 6-inch increments is recorded on the logs. The sum of the hammer blows for the second and third interval provides the Standard Penetration Resistance (N) and is a measure of soil strength.



**Figure 1 – Exploration Location Plan**

WEA observed the exploration program and reviewed the samples as they were extracted from the sampler. It is possible that there might be thin layers of material lying between the sampling intervals that are not described on the logs and which might not become known until construction. Likewise, the depth to each soil stratum is considered to be approximate and may be more gradual or different in the field. SEC prepared the soil test boring logs attached to this report for reference.

Refer to Appendix A of this section for the soil test boring logs by Weber Engineering Associates dated December 14, 2012.

### **Subsurface Conditions**

The subsurface conditions encountered during the exploration program are relatively uniform at the borehole locations as described herein.

#### Soil

Beginning at the ground surface the conditions consist of:

1. Approximately 3 inches of bituminous pavement in borings B-6, B-7 B-8 and B-9 and 6 inches in boring B-3. Borings B-1, B-2 and B-4 were located in unpaved areas.
2. Approximately 3 to 8 feet of fill was observed in borings B-1 to B-3, B-6 and B-7. Fill could not be distinguished in the other borings and might not exist or might not become known until construction. The fill is described as fine to coarse sand, trace silt, trace to some gravel and might have topsoil mixed in with the sandy material. The fill is loose to medium dense and must be removed from within the building footprint in its entirety.

3. The predominant material lying below the fill or ground surface depending upon location is a stratified sand that ranges from very fine sand, fine to medium sand and gravelly sand as described on the attached logs. The material is medium dense. All borings except B-3 terminate within this material.
4. In Boring B-3, which is the deepest boring, the sand changes to medium dense silt at a depth of approximately 20 feet BGS. The silt layer in boring B-3 is approximately 14 feet thick but is apparently discontinuous since it was not encountered in the remaining borings taken on site.
5. Boring B-3, the deepest boring, encountered dense glacial till at a depth of approximately 34 feet BGS. The till consists of some fine to coarse gravel, some fine to coarse sand with some silt. Refusal material which might be bedrock or boulder was encountered at a depth of 43 feet BGS. Since the material was not cored, its identity is unknown and refusal, which is defined herein as the inability to advance the boring deeper without coring was not encountered in the remaining 7 borings.

#### Groundwater

Groundwater was measured at a depth of approximately 35 feet BGS during the exploration program. Groundwater was not observed in the remaining 7 boreholes.

The groundwater conditions stated on the logs are applicable to the time when the readings were made. The level of groundwater below the ground surface fluctuates based on conditions such as season, temperature and amount of precipitation that might be different from the time when the observations were made. Therefore, the groundwater levels can be higher or lower during construction and during the life of the structure. This fact must be taken into consideration when preparing foundation design and developing earthwork procedures.

#### **Recommendations**

Recommendations are presented in the following sections.

#### **Foundations**

The subsurface conditions encountered at this site and as described previously are suitable for supporting the proposed building using shallow foundations. Where fill might be removed to a depth below the bottom of the footing, WEA recommends that the excavation be backfilled with compacted structural fill. The existing undisturbed soil conditions as described are suitable for supporting shallow spread footings. Fill should be removed and replace with compacted structural fill before constructing footings. WEA recommends supporting the structure on shallow spread footings bearing at an allowable soil pressure of 2 tsf (4000 psf) provided that the footings are at least 3 feet wide. For footings less than 3-feet wide, such as wall footings, reduce the allowable pressure by a factor of B/3 where B is the actual footing width. Individual footings should be no less than 24-inches wide and wall footings should be no less than 18-inches wide.

Footings designed in accordance with these recommendations are expected to have a total settlement less than 1 inch. Differential settlement between adjacent footings is expected to be less. Since the foundation soil is granular, WEA expect that the settlement will occur during construction and shortly thereafter as load is applied to the foundation.

Footings bearing on gravelly sand need no special subgrade pressure other than re-compacting the footing subgrade to verify that the material is firm. Footings bearing on the underlying silty fine sand however should have a 4-inch thick layer of 3/4-inch graded crushed stone placed between the soil and the bottom of the footings as a working surface to protect the subgrade soil. The subgrade soil should also be proof rolled to verify that it remains firm. The excavation should be finished using a flat blade to avoid disturbing the material or remove the loose softened material prior to preparing the subgrade.

Exterior footings should be placed at least 4 feet BGS for frost protection and interior footings should be placed at the nominal depth below the floor slab as required by the Code.

### **Concrete Slab**

Subsurface soil conditions are suitable for supporting a slab on grade after removing the pavement, building and excavating or filling to the base course subgrade. The slab subgrade should be proof rolled to verify that the soil is firm prior to constructing the slab base course layer.

To reduce the possibility of capillary rise of groundwater and moisture into the floor slab WEA recommends that the concrete floor slabs be constructed over the following sub base and as specified by the project designer:

- A minimum 10-mil thick impermeable vapor retarded placed in accordance with manufacturer's recommendations, well-sealed and protected from damage, placed over
- 6 inches of compacted, freely draining base course material such as the 3/4-inch crushed stone specified herein. A below ground basement section will require in to a foundation drainage system.

Cosmetic cracking of slabs-on-grade is normal and should be expected. Cracking can occur not only as a result of heaving or compression of the underlying soil, but also as a result of concrete curing stresses. To reduce the potential for cracking, the precautions listed below should be closely followed for construction of all slabs-on-grade:

- WEA recommend installing construction joints between the floor slab and the walls and columns to account for differential settlement between the footings and slab. Concrete slabs should be jointed according to the American Concrete Institute (ACI) requirements, or other suitable code.
- All backfill in areas supporting slabs should be moisture conditioned and compacted. Backfill in all interior and exterior water and utility line trenches should be carefully compacted.
- Exterior slabs should be isolated from the building. These slabs should be constructed to function as independent units. Movement of these slabs should not be transmitted to the building foundation or superstructure.

**Foundation and Underslab Drains**

WEA understands that there may be no basement section of the building and therefore, foundation drains are not required. If however, plans change and the building includes a basement section, then exterior foundation drains, discharging by gravity into a suitable system, are recommended.

Although groundwater is low, the drains will provide a means for water migrating from the ground surface to drain. WEA recommends that foundation drains be installed around the exterior perimeter of the below ground basement section. Underslab drains are not necessary.

The recommended foundation drain consists of a 4-inch to 6-inch diameter perforated pipe encased in at least 6-inches of 3/4-inch crushed stone wrapped in geotextile fabric such as Mirafi 140N or equivalent. The invert of the pipe should be no higher than the bottom of the 12-inch thick base course layer.

Since the groundwater will be kept at a level lower than the slab, the basement walls need not be waterproofed, just dampproofed. Cleanouts should be spaced at 90-degree bends or 150-ft runs. If drainage is not provided then the basement section should be designed as a waterproofed structure bearing on a mat foundation.

The ground surface immediately adjacent to the building perimeter should slope away from the structure at a grade not less than 1 (vertical) to 20 (horizontal) for a distance of at least 10 feet unless other alternative methods are used for diverting water.

**Lateral Earth Pressure**

WEA understands that it is undecided whether there will be basement walls although there might be retaining wall to support / extend the parking area adjacent to the lower MBTA tracks. Topographic plans are not available at this time. With this uncertainty, WEA has provided general recommendation for lateral pressure. Exterior foundation walls and retaining walls should be designed to resist both the superimposed effect of the total static lateral earth pressure and the earthquake. Foundation walls such as basement that are restrained from movement should be Weber Engineering Associates, LLC designed using the “at rest” lateral earth pressure. Earthquake forces should be applied as stated in the latest addition of the building code.

The recommended design values for lateral earth pressures are shown below and assume a horizontal backfill surface. If the foundation walls are also used to support adjacent parking then WEA recommend increasing the design pressure behind the wall to include a surcharge for automobiles. The recommended lateral surcharge pressure for the restrained case is  $0.5q$  psf where  $q$  is 100 psf for automobiles. Mechanically stabilized walls should be designed by a qualified engineer engaged by the contractor based on line and grade shown on the contract documents.

Total Soil Unit Weight	125 pcf
Active Lateral Earth Pressure Coefficient with a horizontal backfill surface ( $K_a$ )	0.33 Active Condition
At Rest Lateral Earth Pressure Coefficient with a horizontal backfill surface ( $K_0$ )	0.5 At Rest Condition
Equivalent (Fluid Pressure (active conditions))	42 pcf/ft
Equivalent (Fluid Pressure (at rest conditions))	62.5 pcf/ft
Groundwater Pressure	None - drained
Uniform Surcharge Pressure (active conditions)	33 psf
Uniform Surcharge Pressure (at rest conditions)	50 psf

### Earthwork

In the preceding sections WEA has outlined several recommendations for earthwork. There are additional recommendations provided below which should be incorporated into the structural design and Contract Documents.

1. Freely draining backfill is required directly against basement walls or landscape retaining walls for drainage.
2. All fill placed within and below the structure must be compacted to at least 95 percent of the maximum dry density determined in accordance with ASTM D1557. Lifts must be controlled so that they do not exceed 6-inches in confined areas and 12-inches in open areas where larger compactors can be utilized. Use hand-operated equipment within 10-ft behind retaining walls and do not over-compact the backfill material.
3. Remove all demolished structures including, footings, slabs, walls and utilities within the proposed building footprint and to a distance of 10 feet beyond the building perimeter line and backfill the excavations with compacted structural fill. WEA recommends that all backfilling work be done as part of the construction package and not by a demolition contractor.
4. In pavement or landscaped areas, if parts of the former structure are left in place, the remaining top of structures must be cut off and removed at least 24 inches below the pavement base course layer or surface of landscaping.
5. All excavations shall be stabilized by cutting back the side slopes or using shoring and bracing as required by 29 CFR 1926 Subpart P, Excavations. Plans and specifications should make reference to this requirement so that Contractors are aware of their responsibility.
6. Drainage must not be directed onto adjacent property either during construction or as part of the design grading especially if this would affect groundwater and / or moisture conditions on the adjacent parcel.
7. The explorations did not encounter bedrock to the depths explored although it might occur at a depth in the order of 43 feet BGS. Therefore based upon these explorations, WEA does not anticipate that there will be bedrock excavation on site.

### Seismic Considerations

Subsurface conditions beginning at the ground surface of the site consist of medium dense to dense material throughout the entire depth explored. Boring B-3 extended deepest where it encountered refusal in glacial till at a depth of 43 feet BGS. Since the material was not cored, WEA excluded that material as bedrock and assumed that the material was glacial till throughout the remaining depth to 100 feet. Based on these calculations, WEA recommends that the site be classified as Site Class D and seismic values based on Site Class D are presented below.

Massachusetts 8 <sup>th</sup> Edition	Reference	Equation	Value
City - Newton, MA			
Site Class Definition	Table 1613.52	D	
Earthquake Design Factors (short)	Table 1604.11	$S_S$	0.270
Earthquake Design Factors (1 -sec)	Table 1604.11	$S_1$	0.068
Site Coefficient - $F_a$	Table 1613.5.3(1)	$F_a$	1.584
Site Coefficient - $F_v$	Table 1613.5.3(2)	$F_v$	2.400
Max EQ spectral response - $S_{MS}$	Eq 16-36	$F_a * S_S$	0.428
Max EQ spectral response - $S_{M1}$	Eq 16-37	$F_v * S_1$	0.163
Design spectral response acceleration - $S_{DS}$	Eq 16-38	$2/3 * S_{MS}$	0.285
Design spectral response acceleration - $S_{D1}$	Eq 16-39	$2/3 * S_{M1}$	0.109

### Construction Dewatering

Since groundwater was observed at a depth of approximately 35 feet BGS, WEA does not anticipate that groundwater will be encountered during construction.

### Materials

WEA recommends that the following material gradations and names be used for consistency on the drawings and in the earthwork specifications. All material must be well graded between the limits shown herein and be capable of being compacted to the required degree of density. The material shall have sufficient fines so that it does not shove and remains stable. WEA also recommends that the specifications not allow the use of recycled material such as reprocessed building demolition material.

### Common Borrow

Friable natural soil containing no gravel greater than 2/3 loose lift thickness and free of trash, snow, ice, organics, roots, tree stumps and no more than 35 percent passing the No. 200 sieve. Common borrow can be used as general backfill provided it can be compacted and stabilized for the intended purpose.



Structural Fill

Use below the building slab base course layer and below footings.

Sieve Size	Percent Finer
3-inches	100
½-inches	50 - 100
No. 4	30 - 85
No. 10	20 - 75
No. 60	5 - 35
No. 200	0-10

Dense Graded Crushed Stone

Use for base course material below slabs.

Sieve Size	Percent Finer
2-inch	100
1-1/2-inch	70 - 100
¾-inches	50 - 85
No. 4	30 - 55
No. 50	8 - 24
No. 200	3 - 10

Crushed Stone

The crushed stone should meet the requirements for material M2.01.4 (3/4-inch gradation) stated in the Massachusetts Highway Department Standard Specifications for Highways and Bridges.

**Review of Plans and Specifications**

WEA recommends that WEA be allowed the opportunity to review the plans and specifications for geotechnical issues prior to completing the Contract Documents. The purpose of this is to verify that the intent of our recommendations have been correctly interpreted and included.

**Services During Construction**

WEA recommends that WEA be engaged to observe subsurface conditions at the bottom of the foundations prior to casting the footings. The purpose of this is to verify that the expected conditions are present and to provide recommendations should actual conditions differ.

**Limitations**

This report is delivered subject to the following limitations:

1. The recommendations presented herein reflect our opinions and are based upon engineering studies conducted using the available subsurface information as stated herein along with our understanding of the building configuration and grades at the time this report was prepared. If other information becomes available or if conditions change WEA must be notified. The recommendations will be reviewed in context with the new information and WEA reserves the right to modify our recommendations as necessary.
2. The studies and recommendations summarized herein are based upon generally accepted geotechnical engineering practices. No other warranty, expressed or implied is made. These recommendations apply specifically to this project since they are based on site-specific conditions. Hence, they are not transferable.
3. This report has been prepared solely for design purposes and shall not be incorporated by reference of other means into the Contract Documents. If this report is included in the Project Manual, it shall be for information only. Earthwork specification clauses shall take precedence.
4. WEA did not provide services to explore for or detect the presence of moisture, mold or other biological contaminants in or around any structure. The Client acknowledges that mold is ubiquitous to the environment and that increased mold can occur when building materials are impacted by moisture. Client further acknowledges that site conditions are beyond our control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. WEA shall not be held responsible for the occurrence or recurrence of mold amplification.
5. WEA did not provide any service to investigate or detect the presence of contamination in the subsurface environment.

**SOILS**

SBNE researched existing USDA Natural Resource Conservation Service (NRCS) soil survey information and performed on site soil tests on November 24, 2012.

The NRCS classifies the soils at the site as in the “Udorthents, sandy” soil series. These soils are within developed sites in uplands that are underlain by “glacial outwash” soils that typically consist of sands and gravels. The surface conditions are altered, so the natural surface soil conditions are no longer recognizable and are no longer a major factor in determining the capability of the land. Therefore, on-site soil testing is necessary for site specific evaluation.

The on-site soil testing consisted of borings performed by Weber Associates and test pits performed by Schofield Brothers of New England (SBNE). The testing confirmed the NRCS Soil Survey information. The soils are deep sands and gravel with no groundwater nor any indicators of seasonal high groundwater to the depth of the test holes (12 to 13.6 feet in depth). Two In-situ permeability tests were performed and the results showed the soils to be rapidly permeable as one would expect for this soil type.

For stormwater management purposes, the soils are confirmed to be in Hydrologic Soil Group A (NRCS Classification). Also, based on the testing, the site is very suitable for stormwater recharge and infiltration BMPs (Best Management Practices). This is a very important finding, as the various City of Newton, Stormwater regulations and policies require infiltration of stormwater for construction projects where feasible, and particularly where there is to be an increase on impervious surfaces.

Refer to Appendix B of this section to see the soil test reports by SBNE dated November 27, 2012.

**WETLANDS AND FLOODPLAINS**

To determine whether Wetland Resource Areas under the Mass. Wetlands Protection Act and Newton Floodplain / Watershed Protection Ordinance are located on or near the site, SBNE researched Mass. GIS wetlands Data Layers, current FEMA Flood Hazard Maps (June 2010), Newton Wetlands, Floodplains and Conservation Areas Mapping, existing aerial photographic information and field observations made of the site and surrounding area by our Wetland Specialist.

Based on this information, it is our opinion that there are no Wetland Resource Areas under the Mass. Wetlands Protection Act on or near the subject site, including Bordering Vegetated Wetlands, Banks, Land Under Water Bodies, Land Subject to Flooding and Riverfront Areas. Also based on this research, there are no protected areas subject to the Newton Floodplain / Watershed Protection Ordinance (Chapter 22, sec 22-22) on or near the subject site.

We also did not note any isolated wetlands or isolated pockets on the site that would meet the definition of isolated wetlands or lands subject to flooding or vernal pools.

The nearest wetland area appears to be located on the Brae Burn Country Club property, more than 1000 feet to the northwest of the site.

**ZONE II AQUIFERS AND REGULATED WATER SUPPLIES**

According to the latest Mass. GIS, data layers, the subject site is not within any regulated "Wellhead Protection Area Zone II". The site is also not within a regulated Zone A to a surface water supply and is not tributary to any surface water supply.

**WILDLIFE HABITAT**

As part of the evaluation for this site, the Massachusetts GIS Natural Heritage Data Layers through December 5, 2012, published by the Massachusetts Natural Heritage and Endangered Species Program, were reviewed. According to the data layer information, the latest information is dated October of 2008. Based on the mapping, the site does not exist within any area designated as Estimated Habitat or Priority Habitat of Rare Wetlands Wildlife.

There are also no mapped Certified Vernal Pools or Potential Vernal Pools on the site or in close proximity to the subject property.

**ENVIRONMENTAL SITE ASSESSMENT**

*Environmental & Construction Management Services, Inc. (ECMS)* has performed a Phase I Environmental Site Assessment (ESA) for the Angier Elementary School located at 1697 Beacon Street in Newton, Massachusetts (herein after referred to as the Site). This assessment was performed to evaluate the likelihood of a release and/or threat of release of oil and/or hazardous materials at the Site pursuant to the Massachusetts General Law, Chapter 21E (MGL Chapter 21E) and the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000.

The site assessment work described in this report was conducted between November 21 and December 14. This work was performed in conformance with the scope and limitations of the ASTM Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process Document E-1527-05 and EPA's All Appropriate Inquiry (AAI) Final Rule (effective as of November 1, 2006).

The purpose of the investigation was to identify possible conditions that would be indicative of releases of oil and/or hazardous materials and threatened releases of oil and/or hazardous materials on, at, in or to the site. The investigation included inspection of the site and the exterior of adjacent properties, interviews with site staff and regulatory officials, review of appropriate Federal, State, and local historical and environmental records. This assessment revealed the following:

On-Site

This assessment of the site's current and past uses has identified a condition indicative of release of oil or hazardous substances or threatened release of oil or hazardous substances on, at, in or to the Site.

City of Newton Fire Prevention Office records indicate that fuel oil has been stored underground at the Site since at least 1966. In July 1995, one (1) 10,000-gallon capacity No. 2 fuel oil UST was removed from the Site and replaced at that time with another (and the current) 10,000-gallon capacity UST. No additional information pertaining to the condition of the tank or surrounding soils upon its removal was identified in records reviewed for this investigation. According to Mr. Rick McElroy, maintenance personnel at the Angier Elementary School, this tank has not been used for approximately 3 or 4 years and that he believes there is at least 8,000-gallons of fuel oil remaining in the UST.

Evidence of leaking of fuel oil was observed in the subbasement from the UST piping that leads to the boilers. Absorbent material has been placed on the spillage.

#### Off-Site

No releases of oil or hazardous materials have been documented at nearby properties that would represent conditions of releases on, at, in or to the Site.

#### Recommendations

There is concern over the lack of field or laboratory sampling from the previous UST removal in 1995. As referenced in the Massachusetts Department of Environmental Protection (MassDEP) preferred method of documentation as outlined in accordance with Commonwealth of Massachusetts Underground Storage Tank Closure Assessment Manual (MassDEP Policy #WSC-402-96) dated April 9, 1996, for a tank of this size, it is the typical recommendation by ECMS that a minimum of five (5) soil samples (one from each sidewall and at least one from the bottom of the excavation) be collected and analyzed.

Given the age of the current 10,000-gallon capacity UST on Site (17 years old), ECMS recommends that the UST be checked for compliance with State and Federal regulations. This UST has reportedly not been used to heat the Site for approximately 3 to 4 years. According to Massachusetts Board of Fire Prevention Regulations 527 CMR 9.07 (J)(3), double walled tanks may be taken out of service for a period not to exceed 24 months provided the provisions of 527 CMR 9.07(J)(3) be met. The provisions call for the notification of the Fire Department, removal and disposal of all product from the tank in accordance with 310 CMR 30.00: Hazardous Waste and all openings properly secured and the tank rendered inert. Should the tank be restored to service, the provisions in the regulations call for the notification of the fire department. The fire department may require pipe testing prior to restoring service. Should it be determined that the tank will be abandoned for good and plans be made for removal, they should be done in accordance with the MassDEP Commonwealth of Massachusetts Underground Storage Tank Closure Assessment Manual (MassDEP Policy #WSC-402-96) dated April 9, 1996.

Should the UST be restored for use, the Massachusetts Board of Fire Prevention Regulations, 527 CMR 9.07 Section P, now requires third party inspections of USTs. Inspections are required upon installation for new USTs, and prior to August 8, 2010, and every three (3) years thereafter for existing USTs.

The inspector determines that the following systems are appropriate, in place, and operational: corrosion protection; overfill prevention; spill prevention; tank and piping release detection; and secondary containment.

In addition to an inspection of the UST systems, documentation reviewed during the inspection includes: current licenses, permits and registration forms; copies of the manufacturers operating instructions and current inspection and testing records for leak detection and monitoring systems; evidence of financial responsibility; records of any release reporting and investigation; and temporary or permanent closure records.

The inspector is required to submit copies of the inspection form to the State Fire Marshall and to the head of the local fire department within 14 days of completing the inspection. ECMS found no evidence that this requirement has been performed for the existing on-site UST.

Therefore, given the unknown condition of the removed UST and the lack of laboratory data from the tank excavation in July 1995 as well as the condition of the current UST at the Site, ECMS believes subsurface investigations to document current subsurface conditions are warranted. Subsurface investigations would include the advancement of soil borings and installation of groundwater monitoring wells with subsequent collection of representative soil and groundwater samples for laboratory analysis.

ECMS also recommends that the spilled fuel oil and absorbent material observed around the UST piping in the subbasement at the Site be containerized and properly disposed.

Refer to Appendix C of this section for the full Environmental Site Assessment report by ECMS dated December 14, 2012.

**STORMWATER MANAGEMENT SYSTEM**

The information for the existing stormwater drainage system is based on the original 1919 site plans and plumbing plans for the school, the 1936 addition plans and current on-site topographic survey information from Hancock Associates.

According to the 1919 and 1936 plans, the existing roof drains for the building exit the rear of the building under the 1936 addition via a 6 inch clay tile. An area drain located at the bottom of the rear access ramp to the basement also connects to this system. The 1919 plans show the drain discharges to a large dry well at the northern corner of the site near the railroad right of way.

Per the current survey information, the building drains connect to a drain manhole in the rear parking area and then drain via a 12 inch drain to a catch basin at the northwest corner of the parking lot. Two other drains from the adjacent parkland also connect to this catch basin and the basin shows an outlet to the northwest. As stated above, the discharge was proposed to be a large seepage pit on the 1919 building plans. Further investigation is ongoing by the surveyor to determine the discharge facility.

The front half of the site including the west parking lot and the portion of the land in front of the building drains southwesterly toward Beacon Street. There are several catch basins that receive stormwater runoff within the paved areas in the front of the site. These include two catch basins on the bus loop, and one catch basin at the intersection of Belgrade Road and Beacon Street. These three catch basins are off site within the City road right of way. There is one on-site catch basin at the front of the southwest parking lot. All four catch basins connect to the 12 inch RCP (reinforced concrete pipe) in Beacon Street.

The following are stormwater issues for consideration relative to the planning for improvements to the site for future consideration:

1. The City of Newton is working on compliance with their National Pollutant Discharge Elimination System (NPDES) Permit from the U.S. Environmental Protection Agency. As part of that compliance effort, the City has adopted standards for the design and construction of all stormwater management systems. This is being administered by the Newton Public Works Department through the Engineering Division. The requirements are found in the following documents:
  - "Requirements for On-Site Drainage (Stormwater Management)" as revised January 29, 2007.
  - "City of Newton Engineering Division, Check List, Minimum Requirements" dated August 6, 2004.
2. The stormwater runoff from a major portion of the southwest parking lot appears to by-pass the parking lot catch basin and drains out of the driveway directly to Beacon Street. This condition would need to be corrected in the planning for the site.

3. The U.S. EPA has recently prepared a “Waterbody Assessment and TMDL Status” for Newton dated February 2010. (TMDL = Total Maximum Daily Load of various pollutants) The subject property is tributary to Cheese Cake Brook which begins on the Brae Burn Country Club property. That brook is shown as in Category 5 “Impaired or threatened waters for one or more uses and requiring a TMDL”. The specific impairments of the brook are Nutrients, Organic Enrichment / Low Dissolved Oxygen, Pathogens, Noxious Aquatic Plants and Other Habitat Alterations. Specific TMDLs have not been set for this brook, but in order for the City to be in compliance with their NPDES permit, the City will need to take measures to not further degrade the stream and to make improvements in stormwater discharge quality where possible.

Cheese Cake Brook is also a tributary to the Charles River, which has a TMDL for certain pollutants that must also be taken into consideration relative to stormwater discharges.

4. In order to maintain compliance with the NPDES permit, the City is generally requiring infiltration of as much stormwater as possible on all development projects. The reason for this is that recharge / infiltration BMPs are some of the more effective tools to reduce the targeted pollutants for both Cheese Cake Brook and the Charles River. As such, we recommend that the school project try to incorporate stormwater system improvements that utilize infiltration and other LID (Limited Impact Development) concepts where feasible.
5. The storm drains in Beacon Street are deep enough to drain the front half of the site to that drain system, as the site is presently drained. However, it would be difficult to drain the rear half of the site to the street without increasing the existing grade. Therefore, the rear half of the site will likely need to drain in a similar fashion as the existing system to underground infiltration systems. Also, if there is going to be a below grade basement, a foundation drain system would need to be discharged via a sump pump to the site drainage system.



**SITE SEWER SYSTEM**

The building sewer for the Angier School exits the building at 2 locations at the front of the building. According to the 1919 plans, these include two 5 inch clay pipes that join to a 6 inch clay drain tile that discharges to the City sewer line in Beacon Street. The sewers all drain via gravity (no pumps or siphons).

According to the current site survey information, The elevation of the sewer at the manhole at the front of the site is at elevation 144.1 ft, and the invert of the connection point at the 8 inch City sewer in Beacon Street is approximately 143.2. If the proposed basement elevation of the proposed new building is to be below the lower floor level of the existing building (148.2 +/-), then a sewer ejector pump system would likely be necessary to get the basement fixtures up to the gravity system serving the floors above the basement.

**WATER SUPPLY SYSTEM**

A single water service line enters the front of the building from the City water main in Beacon Street. Further investigation is ongoing by the surveyor to determine the pipe sizes and will be available soon. There are presently no known pressure or volume problems at this area of the City water system.

**VEHICULAR PAVEMENT (PARKING LOTS AND DRIVEWAYS)**

The pavement at the parking lots and driveways is standard bituminous concrete that had not been resurfaced in many years. As such, it has major cracking and structural issues. Most of the parking lots and drives have granite curbs and most appear to be in relatively good condition.

If there is any thought to re-use any of the parking areas and driveways as they are presently configured, simple re-surfacing would not be recommended due to the poor condition. Rather, the pavement should either be removed and replaced or utilize full-depth reclamation where the existing pavement is pulverized and blended with the existing gravel base, re-graded and compacted, excess material removed, and a new bituminous surface installed. This would essentially restore the pavement systems back to new condition.

**ARCHITECTURAL SYSTEMS****1. Exterior Walls**

Exterior walls consist of varying thickness from 12" to 16" of concrete masonry unit backup and brick veneer (load bearing). There are no control joints in the brick veneer and cracks were observed in several areas, most notably at northeast building corners of the 1937 addition most likely due to water infiltration.

**2. Roofing**

A built-up roof system of tar and gravel is supported on a sloped cast-in-place concrete roof deck. The perimeter has a masonry parapet with copper coping. The interior light well is not protected by a safety railing. The roof continues to perform well, but exceeding its life expectancy. Masonry chimney needs to be rebuilt for the upper 1/3 of its height.

**3. Windows**

Windows throughout are aluminum with single pane glass separated by 2" air space with operable and fixed sash, which were replaced approximately 15 years ago.

**4. Exterior Doors**

Exterior doors are a combination of plastic faced metal door and frames and preexisting wood decorative transoms and are generally in fair to poor condition. Replacement of exterior doors and hardware is a priority.

**5. Interior Walls**

Most interior masonry walls (brick, glazed and painted) are load bearing and generally in good repair with minimal cracking. Other walls are painted plaster and show signs of needing repair and repainting.

**6. Interior Doors**

The interior wood doors and frames are in reasonable condition, but are in need of repair and refinishing with all new hardware. A number of doors need to be replaced due to condition and code conformance.

**7. Floors**

All classrooms have vinyl asbestos tile in fair condition overlaying asbestos tile substrate. The vinyl asbestos tile and mastic should be abated. The library corridors and select rooms have carpeting in poor condition. The Gymnasium has a wood floor and is in good condition.

8. Ceilings

Lay-in ceiling tiles are sagging; poor finish and condition, and require replacement. Above all lay-in ceilings are painted plaster ceilings.

With the requirement to fully sprinkler the school, all ceiling grid systems will be requested to be removed and replaced.

9. Lockers/Cubbies

Student cubbies line most corridor walls and are in poor condition.

10. Building Code

Based upon the option to renovate the school with additions, the entire building will have to be brought up to the Massachusetts Building code, including full compliance with MAAB/ADA.

11. Portable Classrooms

(None exist)

**STRUCTURAL ANALYSIS**

*Foley Buhl Roberts & Associates, Inc. (FBRA)* is collaborating with *DiNisco Design Partnership (DDP)* in the review and evaluation of structural issues/conditions at the Angier Elementary School in Newton, Massachusetts. The purpose of this report is to identify and describe the structural systems of the facility and to comment on the structural issues/conditions observed. General comments relating to potential renovations, alterations and additions to the building (governed by the Massachusetts Existing Building Code (MEBC – 8<sup>th</sup> Edition)) and comments related to potential site modifications are presented as well.

Structural conditions at the Angier Elementary School were reviewed at the site on November 20, 2012.

The following documents were reviewed in the preparation of this Existing Conditions Structural Report:

*Waban Elementary School:* Architectural and Structural Drawings 1 to 15, prepared by William G. Perry and James H. MacNaughton Associates Architects, Boston, Massachusetts, dated November 8, 1919.

*Addition to the Angier School:* Architectural Drawings 1 to 7, prepared by Frank H. Colony Architect, Boston, Massachusetts, dated February 13, 1936.

*Addition to the Angier School:* Structural Drawings 201 to 203, prepared by Maurice A. Reidy Consulting Engineer, Boston, Massachusetts, dated February 13, 1936.

No exploratory demolition or structural materials testing was performed as part of this study. Two original borings logs for the 1936 were included on the Architectural Drawings (Drawing 1). Subsurface soils conditions at the site are currently being investigated by Weber Engineering Associates, LLC.

**GENERAL DESCRIPTION**

The Angier Elementary School is located at 1697 Beacon Street in Newton, MA. The original school is a three-story (2½ stories above grade), concrete and steel framed building, constructed in 1921. A three-story, concrete and steel framed was constructed on the north (back) side of the original school in 1936, creating an internal Light Court at the junction of the two structures (Refer to Photo Nos. 5 and 7). The total, gross floor area of the original school and the 1936 addition is approximately 52,940 gross square feet.

The Gymnasium is located at the Basement Floor level in the original building, bordering the Light Court on the south side. Additional program elements at this level include an After School Activity Room, Classrooms, the Art Room, the Teachers' Lounge, a Kitchen, Storage Rooms and other support spaces. The Boiler and Fan Rooms are located on the south (front) side of the original building in a depressed floor area. Program elements at the First Floor level include the Administrative Offices (southwest corner of the original school), the Library (above the Gymnasium, in the original Auditorium) and Classrooms. The Second Floor is mostly dedicated to Classroom spaces, with a few small offices located on the former Auditorium Balcony.

The Angier School was constructed on a relatively level site. The MBTA Green Line tracks are located to the north of the facility, at the base of a relatively steep, downward slope. The main, split-level entry to the school is located on the south side, at grade (Elevation 154.67'+/-). The entry stairs extend up to the First Floor (Elevation 162.0'+/-) and down to the Basement (Elevation 148.67'+/-).

## **STRUCTURAL SYSTEMS DESCRIPTION**

### **General Construction**

Floor and roof construction at the Angier School is typically a concrete slab supported by interior and perimeter, unreinforced masonry bearing walls. The Basement floor is a concrete slab on grade; foundations are conventional spread footings.

### **Structural Materials**

Structural material strengths were not noted on the original Structural Drawings; however, historical data suggests the following: The minimum 28-Day concrete compressive strength is likely to be 2,500 to 3,000 psi. Steel reinforcing has a likely yield stress of 33,000 to 40,000 psi. Structural steel presumably is ASTM A9, with an allowable bending stress of 18,000 to 20,000 psi.

### **Allowable Soil Bearing Pressure**

Spread footings for the addition were proportioned on the basis of a 3.0 tons per square foot (TSF) maximum allowable bearing pressure on the natural soils. Representative structural **calculations generally confirm these design allowable bearing pressures.**

### **Story Heights**

Story heights in the original school and the addition are as follows:

Basement to First Floor: 13'-4"

First Floor to Second Floor: 13'-10"

Second Floor to Roof: 12'-6" to Ceiling; Roof Elevation Varies

### **Design Live Loads**

Design loads are not listed on the original Structural Drawings. As the construction pre-dates the introduction of the Massachusetts State Building Code, the design live loads were likely consistent with other codes in effect at the time (e.g. the Boston Building Code). The building appears to have performed satisfactorily over time; there are no indications of structural overstress or failure. A comprehensive investigation and evaluation of the floor and roof structural capacity is beyond the scope of this report.

**Expansion Joints**

There are no expansion joints in the building; the 1936 addition is structurally connected to the original school.

**Roof Construction**

Roof construction at the original school consists of a one-way, reinforced concrete joist slab supported by masonry bearing walls. The slab is 12" deep over the Classrooms (10+2: 10" deep joist plus 2" topping slab) and 10" deep over the Corridors (8+2). Joists are typically spaced at 25" on centers. The 8+2 joist slab over the original Auditorium is supported by 40" deep, clear spanning steel plate girders, encased in concrete.

The roof of the 1936 addition is similarly framed, with a 10+2½ joist slab over the classrooms (joists spaced at 25" o.c.) and a 4½" deep, one-way reinforced concrete slab over the corridor. Roof slabs of the original school and the addition are pitched for drainage and a parapet exists at the entire perimeter of the building (originally 3½+/- feet high - apparently reduced at a later date).

Second and First Floor Construction in the original school is a reinforced concrete joist slab, similar to that described for the roof. The 8+2 joist slab over the Gymnasium is supported by 36" deep, clear-spanning steel plate girders, encased in concrete. Floor construction in the addition consists of reinforced concrete slabs similar to those described for the roof, except a 5" deep, one-way reinforced concrete slab was constructed in corridor areas. Fan Room Mezzanines (below the First Floor) at the east and west ends of the Boiler Room in the original school are framed with 6½" thick, reinforced concrete slabs.

Basement Floor Construction in the original school consists of a concrete slab on grade; 4 to 5 inches thick. There are numerous utility trenches below the floor; reinforced concrete slabs or removable steel trench covers have been provided at these locations.

Exterior Wall Construction at the original building and at the addition is solid brick masonry, 12" to 16" thick. Original windows were replaced (reportedly about 20 years ago) and new galvanized, steel loose lintels were installed over window heads. New flashing was installed and weep holes were provided in the replaced brick (Refer to Photo No. 8 – typical).

Foundations are typically continuous strip footings below interior and perimeter bearing walls and individual spread footings at interior column/pier supports. As noted above, footings have been proportioned on the basis of a 3 TSF allowable bearing capacity on natural soils. Foundation walls in the original building and at the addition are concrete; 12" to 16" thick.

**Drainage**

It does not appear that foundation drainage was provided in the original building or in the addition. Area drains in the Light Court are inadequate; reportedly, they back up during heavy rains. The Gymnasium Floor can become flooded, unless the accumulated water is pumped out in time.

**Fire Resistance**

Reinforced concrete floor and roof construction has a minimum fire resistance rating of less than 1 hour, due to the relatively thin topping slab (2" to 2½" thick). Additional fire protection may be afforded by the original ceilings; further study would be needed to make this determination.

**Lateral Load Resistance**

The Angier Elementary School was designed and constructed prior to the introduction of seismic design codes. Wind loads were often times not considered in the design of low-rise building of this era. Accordingly, there is no defined lateral load resisting system. Interior and perimeter masonry walls (unreinforced) provide lateral force resistance; however, the construction of these walls does not meet current Code requirements. Lateral force resistance and unreinforced masonry wall issues would need to be addressed in conjunction with a major renovation of the building.

**Subsurface Soils and Foundations**

Two original borings for the 1936 addition indicate a layer of medium fine sand, overlain by 7 to 10 feet of sand and gravel fill. Water was noted in the boring logs to be approximately 24 feet below the ground surface. As mentioned above, foundations for the 1936 addition were proportioned on the basis of a 3 TSF maximum allowable bearing capacity. Subsurface soils conditions at the site are currently being investigated by Weber Engineering Associates, LLC.

**STRUCTURAL CONDITION / COMMENTS**

Structural Conditions at the Angier Elementary School were reviewed (to the extent possible) on November 20, 2012. Generally speaking, floor and roof construction appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated or failed structural members.

Foundations appear to be performing adequately; there are no signs of significant, total or differential settlements. The Basement spaces appear to be dry (with respect to groundwater infiltration).

Floor and roof construction were mostly obscured by finishes; however there was no indication that the floors or roofs had been constructed in manner different than shown on the original Structural Drawings.

Structural/structurally related conditions observed during the November 20, 2012 site visit are noted below. Refer to Appendix D of this section for photographs.

1. Exterior Walls: Conditions observed include the following:
  - As previously noted, galvanized steel loose lintels were installed when the original windows were replaced 20+/- years ago (Refer to Photo No. 8). The lintels and the face brick in this area appear to be in satisfactory condition.
  - Repointing/repair of the face brick is required at various locations (Refer to Photo No. 9).

- The anchorage/bracing of exterior masonry walls as well as the height-to-thickness ratios will need to be evaluated (per Code) if the building is renovated in the future. Periodic, supplemental steel clip angles will likely be required (spaced at approximately 4 feet on centers) to anchor floor and roof diaphragms to the interior and perimeter masonry walls.
  - It appears that the original limestone coping at the top of the parapet was removed in the past, reducing the height of the parapet.
  - Considerable efflorescence was observed on the face brick of the north wall of the original building (corresponding to the south wall of the Light Court). (Refer to Photo No. 7).
  - Diagonal cracks occurred at the northeast corner of the addition at some time in the past. These cracks have been repaired and do not appear to be open at the present time (Refer to Photo No. 10).
2. Chimney: The uppermost section of the chimney appears to be in poor condition. Further evaluation and repair/reconstruction (as appropriate) is recommended. (Refer to Photo No. 6).
  3. Roof: The roof was accessed during the November 20, 2011 site visit. The age of the roof is unknown. FBRA recommends that the roof be evaluated to determine its condition. There have been water infiltration issues at the northwest stairwell of the addition (Refer to Photo No. 4), perhaps due in part to roofing issues. FBRA understands that waterproofing work was conducted in this area several years ago and that the situation has improved.
  4. The condition of the slab on grade (Basement) appears to be generally satisfactory. The presence of a suitable vapor barrier could not be verified.
  5. Foundations: Foundation walls are generally in satisfactory condition. Water infiltration in certain locations has resulted in efflorescence on the interior (Refer to Photo No. 3).
  6. The slab over the original Coal Chute has been exposed to water (failed waterproofing/roofing); oxidation of the reinforcing has occurred as a result (adjacent to the foundation wall and at the manhole). (Refer to Photo Nos. 1 and 2).
  7. Foundation Drainage: As noted earlier, foundation drainage does not appear to have been provided in the original building design. However, below grade areas in the building appear to be relatively dry. Borings from the 1936 addition indicate that groundwater is approximately 24 feet below grade. The groundwater level will be established, in conjunction with the current subsurface exploration program.



8. Loading Issues: The design live loads for the floors of the original school and the 1936 addition are not noted on the Structural Drawings. However, there does not appear to be any issues relating to excessive loading or past overloading conditions. Floor construction appears to be performing as intended. Design roof loads are also unknown; however, it appears that the roof structure has performed satisfactorily over the years. There is only limited potential for snow drifting, as there are no significant changes in roof elevations. However, there is a parapet surrounding the building and there are no scuppers (and presumably no separately piped, secondary drainage system), so water will pond if the primary drains become blocked. This condition should be addressed in conjunction with future renovations to the building. In the interim, roof drains should be periodically inspected and maintained to ensure that they are functioning properly.
9. Interior Masonry Walls: Interior (load bearing) masonry walls are typically in satisfactory condition. The anchorage/bracing of interior masonry walls as well of the height-to-thickness ratios will need to be evaluated (per Code) if the building is renovated in the future.
10. The top sections of concrete areaway walls on the west side of the original school building have deteriorated in the past and have been repaired (Refer to Photo No. 11).

## RENOVATIONS AND ADDITIONS – MEBC REQUIREMENTS

General comments relating to potential renovations, alterations and additions to the Angier Elementary School are presented in this section. Renovations, alterations, repairs and additions to existing buildings in Massachusetts are governed by the provisions of the Massachusetts State Building Code (MSBC – 780 CMR 8<sup>th</sup> Edition) and the Massachusetts Existing Building Code (MEBC). These documents are based on amended versions of the 2009 *International Building Code (IBC)* and the 2009 *International Existing Building Code (IEBC)*, respectively.

The MEBC defines three (3) compliance methods for the repair, alteration, and change of occupancy, addition or relocation of an existing building. The method of compliance is chosen by the Design Team (based on the project scope and cost considerations) and cannot be combined with other methods.

Regardless of the compliance method chosen, the MEBC currently requires that buildings with unreinforced masonry walls be evaluated with respect to the provisions of Appendix A1 of the IEBC (applicable to this project). An assessment of masonry shear stresses, wall slenderness, parapets, wall anchorage, diaphragm anchorage, etc. is required (as applicable); and the existing building must be capable of resisting at least 75% of the seismic loading required by the Code for new construction. Note that the Massachusetts Board of Building Regulations and Standards (BBRS) has voted to remove this Amendment (Section 101.10 in Chapter 34); however, this change to the Code will not be official until January 2013 at the earliest. It is anticipated that this provision will be replaced with a less stringent amendment that is similar to the unreinforced masonry provisions in previous versions of the Code.

In addition, Section 101.5.4.0 of the Massachusetts Amendments requires that the existing building be investigated in sufficient detail to ascertain the effects of the proposed work on the work area under consideration and the entire building or structure and its foundations, if impacted by the proposed work. The results of this investigation must be submitted to the Code official in written form. Note that this investigation is required regardless of the compliance method chosen by the Design Team.

The *Prescriptive Compliance Method* (IEBC Chapter 3) duplicates Sections 3403 through 3411 of Chapter 34 in the IBC and prescribes specific minimum requirements for construction related to additions, alterations, repairs, fire escapes, glass replacement, change of occupancy, historic buildings, moved buildings and accessibility. If the impact of the proposed alterations and additions to structural elements carrying gravity loads and lateral loads is minimal (less than 5% and 10% respectively), seismic upgrades to an existing building are generally not required, except for buildings with masonry walls in Massachusetts (as in this case), which must comply with the requirements of IEBC Appendix A1. Note that this method of compliance was previously disallowed by the BBRS (in an emergency amendment) for buildings constructed prior to the 6<sup>th</sup> Edition of the MSBC; however this motion was subsequently rescinded and tabled. There is no guarantee, however, that the use of this method may be restricted by the BBRS in the future. Accordingly, the Work Area Compliance Method (refer to the next paragraph) has been assumed in this report.

The *Work Area Compliance Method* (IEBC Chapters 4 through 12) is based on a proportional approach to compliance, where upgrades to an existing building are triggered by the type and extent of work. The Work Area Compliance Method includes requirements for three levels of alterations, in addition to requirements for repairs, changes in occupancy, additions, historic buildings or moved buildings. A complete seismic evaluation of the existing building is required for the following: Level 2 alterations where the demand to capacity ratio of lateral load resisting elements has been increased by more than 10%, all Level 3 alterations, a change in occupancy to a higher category (not applicable in this case) and where structurally attached additions (vertical or horizontal) are planned. A full renovation of the Angier Elementary School would be classified as a Level 3 alteration. As the building has interior and exterior masonry walls, compliance with the requirements of IEBC Appendix A1 is also required.

The *Performance Compliance Method* (IEBC Chapter 13) duplicates Section 3412 of Chapter 34 in the IBC and provides for evaluating a building based on fire safety, means of egress and general safety (19 parameters total). This method allows for the evaluation of the existing building to demonstrate that proposed alterations, while not meeting new construction requirements, will maintain existing conditions at their current levels (at a minimum) or improve conditions, as required. A structural investigation and analysis of the existing building is required to determine the adequacy of the structural systems for the proposed alteration, addition or change of occupancy. A report of the investigation and evaluation, along with proposed compliance alternatives must be submitted to the Code official for approval.

### **Additions – General Comments:**

The design and construction of any proposed addition to the Angier Elementary School would be conducted in accordance with the Code for new construction. Additions should be structurally separated from the existing building by an expansion (seismic) joint to avoid an increase in gravity loads or lateral loads to existing structural elements.

**Renovations/Alterations – General Comments:**

Where proposed alterations to existing structural elements carrying gravity loads result in a stress increase of over 5%, the affected element will need to be reinforced or replaced to comply with the Code for new construction.

Proposed alterations to existing structural elements carrying lateral load which result in an increase in the demand - capacity ratio of over 10% should be avoided, if possible. Essentially, this means that removal of, or major alterations to the existing, unreinforced masonry walls in the facility should be minimized. If this is not avoidable, more significant seismic upgrades/reinforcing will be required, potentially including the addition of lateral force resisting elements (braces, shear walls, etc.) so the building will resist 50% to 75% of the seismic forces required by the Code for new construction. Note however, that in this case, IEBC 2009 Appendix A1 provisions for unreinforced masonry already require that building be capable of resisting 75% of the seismic forces stipulated in Chapter 16 of IBC 2009.

**EXISTING SITE CONDITIONS / POTENTIAL MODIFICATIONS**

Preliminary options under consideration for the Angier School include raising the grades along the north side of the site to create additional on-site parking. Presently, the site slopes steeply downwards towards the MBTA tracks that run behind the school. The new wall would be constructed on property owned by the City of Newton, outside of the MBTA right-of-way. MBTA requirements for permissible construction and construction methods adjacent to the right-of-way will need to be determined. FBRA suggests that an engineered, Segmental Retaining Wall system (e.g. VERSA-LOK), might be a practical and economical approach to constructing a retaining wall and raising the grade to accommodate additional site parking. Such systems are typically delivered on a Design-Build basis, in accordance with a performance specification prepared by the Design Team. Special consideration will need to be given to the impact that vibrations from MBTA operations may have on the long-term performance of the wall. Details of the guard rails required in the parking area will need to be carefully designed and coordinated with the geosynthetic grids that reinforce the soil behind the masonry SRW face units.

## HVAC

### Fuel Source

The B-1/B-2 Boilers are dual fuel and have natural gas piped to the burners. Fuel oil is stored in a 10,000-gallon underground fuel tank at the front of the school. Age and condition of the tank is unknown. The fuel tank should be considered for removal due to age. Fuel oil is transferred from the fuel tank to the boilers by a duplex fuel pump set located in the boiler room. The fuel pump set is currently leaking and is recommended for replacement.

### Heating Plant

The heating plan consists of two active oil fired boilers. One boiler is very old and is not operational. The active boilers consist of B-1 model No. 42 Smith from the 1960's with a 3 year old gas / oil fuel burner. Boiler B-2 was installed 3 years ago and is a Smith 12 Section 450 Mils steam boiler. B-2 is considered the lead boiler at is the newest.

Boiler room combustion was upgraded in 2009 with the boiler work and consists of a combustion air fan system and exhaust louver.

The oil burners on B-1 and B-2 should be considered for reuse in the Town if the school is going to be demolished. Additionally, the B-2 in its entirety may be reused in the Town.

### Steam Distribution

Steam from the boilers is connected to main steam header in the boiler room. From the steam header, steam is distributed via several zones of through zone valves to various points in the school. Many of the existing zone valves do not appear to be working. There are complaints in the school of over and under heating which may be the result of poor zone control.

Steam condensate is returned via a vacuum steam condensate unit located in adjacent room to the boiler room. The unit appears to be in fair condition and is recommended to be replaced due to age and condition.

### Classrooms

The classroom spaces are heated and ventilation by perimeter steam classroom unit ventilators, which are 1960's vintage. The units are in fair condition and have exceeded their life expectancy. Classroom exhaust is through closet space between rooms. There are original vent shafts, which have an exhaust fan at the roof to ventilate the classrooms.

### Interior Classroom and Office Space

The school interior classrooms and office spaces are heated and ventilated by heating and ventilating air handling units located in basement mechanical space. The units are in fair condition.

Gymnasium/Library

A heating and ventilation unit located on the basement level supplies ventilation air to the gym and library space. Unit is in good condition.

Kitchen

The kitchen area has a general room exhaust fan to the exterior. There is no kitchen hood.

General

There are steam radiation and unit heaters throughout the school at various rooms, stairs, hallways and entrance points in the school. The units are in fair condition.

Temperature Controls

Classroom temperature controls consist of pneumatic thermostats and unit ventilator controls. The pneumatic controls compressor was recently replaced. The overall control system is in poor condition and is recommended to be replaced.

**Electrical Systems**Electrical Service

The building is presently served from an Nstar pole mounted transformer located in front of the building. The switchboard is located in the basement electric room and is rated at 400-ampere, 120/208-volts, 3-phase, 4-wire, 60-hertz. Switchboard has rust on the enclosure and the switchboard appears to be in poor condition. The switchboard was installed in 1966. The switchboard and the majority of panel were manufactured by Federal Pacific, which has been out of business since the 1980's. Federal Pacific equipment is obsolete and it is difficult to find replacement parts.

Electrical Distribution

The large majority of branch panels are located in corridors. Panels need to be secured with locks.

The large majority of existing panel remain in the building and these panels were manufactured by Federal Pacific. The original panels are at least 45 years old and do not have many spare breakers. Over the years, panels have been added to provide additional circuits. Some of the added panels are residential type load centers. Based on the age of the panels and switchboard, a new electrical distribution system is required during a renovation project.

Emergency Light and Power System

There are no operating emergency generators in the building. There are two generators that are abandoned in place in the building. There are self contained emergency battery units in the corridors, library, gym and other selected space.

Based on past experience, it is doubtful that all areas are covered by emergency lighting as required by code. A new emergency generator and distribution system shall be installed during a renovation project.

Lighting and Receptacle Systems

The lighting is a combination of recessed and surface lens troffers. All lighting fixtures used either T8 lamps, or T12 fluorescent lamps. The standard classroom lighting is either 1' x 8' surface lens troffers or 2' x 2' and 2' x 4' lens troffer fixture. Lighting in corridors is either surface 1' x 4' or recessed 2' x 2' lens troffers. Library lighting is 2' x 4' lens troffer fixtures.

All lighting is controlled by local switch including corridors. We did not observe any occupancy sensors in the portions of the building we inspected.

There are a very limited number of receptacles in all classrooms and offices. Receptacles have been added in classrooms in some areas, however the quantity of receptacles is insufficient for classroom and office requirements.

Fire Alarm System

The building is not sprinkled. The fire alarm system is a fire alarm system consisting of a control panel, annunciator, manual pull stations, heat detectors, smoke detectors, and horn/strobe notification devices. All alarms signals are transmitted to the Fire Department via a master box system.

The smoke detectors are located in the corridors however a large majority of rooms including classrooms and offices do not have smoke detector coverage. The control panel is located at the main entrance adjacent to the admin office. Pull stations are located at egresses, however the pull stations do not meet ADA height requirements and are not located within 5'-0" of the egress doors. There are no horn/strobe units installed in classrooms. There horn/strobes in the corridors however coverage in corridors does not appear to be adequate.

Exit Signs

There is a combination LED and fluorescent exit signs located in all paths of egress. Some exit signs are the original units and are in poor condition. It appears that the exit signs in some areas have been updated with an LED light source. There appears to be adequate egress signage.

Communications

The building is served by a PBX-type telephone system. A telephone has been installed at all workstation locations and in all classrooms.

There is typically one data outlet per office workstation. There are data outlets in any classroom. Wireless access points have been installed in the corridors to provide coverage in classrooms. The wireless coverage was not reviewed but it is doubtful that proper coverage is provided.

There is no coaxial TV distribution network in the building.

The building master clock system has failed and all rooms have battery-operated clocks.

There is a public address system in the building. The system consists of speakers in every room including classrooms and corridors. The PA speakers in the corridors are the original wall mounted speakers. The main sound system console is located in the main admin room. The speakers are connected to the phone system and pages can only originate from the admin office. Despite the age of the system, the PA system is operational; however we did not observe the system operating. We do not know if the PA system is functional in every room. In the classrooms there is a surface wall mounted speaker.

The communication systems are aged and insufficient for a present day school and should be replaced.

Security Systems

There is an intrusion alarm system in the building. The system consists of motion detectors in selected corridors, and door contacts at exterior doors. The system does not provide coverage for the entire building. There is a keypad at the main entrance. The system appears to be functioning but is inadequate for the size of the building.

There is a bell system in the building however it is not programmable and only rings three times a day.

We did not observe any security cameras in the building.

There are card readers at selected exterior doors.

A new security system consisting of an intrusion alarm system and security cameras should be installed during a renovation project.

Sound Systems

There is a sound system in the library for the stage. We did not review this system because the space was being used during our visit.



## Plumbing

### Fixtures

Existing water closets are floor mount flush valve type and most of which are not equipped with water conserving flush valve. The lavatories are the wall hung type with non ADA manual faucets. Majority of the plumbing fixtures are not ADA complaint. Any retrofitted would require MA accessibility compliance and may force the loss of at least one water closet in each toilet groups. Urinals are manual flush valve type and appear to be in good condition. Urinals are more than adequate in number and accommodate current code requirements. The existing plumbing fixtures will need to be verified for adequacy in quantity based on planned occupancy use.

Boys' and girl's locker rooms have individual shower stalls. However the usage of shower is very rare. Presently the shower space is used for general storage purposes.

Janitor Closet is equipped with a wall mounted service sink. Faucet on service sink has no vacuum breaker for backflow prevention and does not meet the plumbing code. Soap chemical dispenser is hose connected to faucet and is in not compliance.

Drinking fountains observed are original wall mounted and are not ADA compliant.

In the kitchen there is one three-bowl pot/scullery sink. The kitchen is primarily used to warm up the food and no cooking is involved.

Most of the fixtures are of original vintage condition and many of which are not of the water saving type. Apparently maintenance is routinely performed on faucets, toilet fill valves, etc. as needed.

During a substantial renovation and addition project, it would require that all the water closets, lavs, etc. be modified with ultra- low flow, water conservation type faucets and flush valves. This is required to meet the prerequisite set forth by Massachusetts's high performance criteria requirements of 20% less water consumption than code. In addition building code will require certain percentage of plumbing fixtures to be ADA complaint fixtures.

### Domestic Cold Water Service

The 4" water service enters the building within the Boiler Room and runs through water meter prior to feeding the buildings domestic water loads. The water meter has no valve by-pass connection and no backflow preventer was found at the main line. It appears domestic water supply has adequate water pressure. Water piping is copper, with soldered joints. Valves are gate, butterfly and ball. Cold water is provided to the boiler as make-up complete with backflow preventers as to avoid cross contamination. Most of the piping is insulated and antiquated and needs to be replaced with thickness as per the latest code. Majority of the plumbing piping are routed through underground trench. Water piping appears to be in fair condition and no active leaks were noticed anywhere around fitting. However, due to the pipe age, there is a probability that the water service could have lead containing solder in the fittings or contain high lead content brass pipe. We recommend water quality shall be tested and monitored for any possible lead contamination and corrected if found to be a problem. If the project involves substantial renovation, we would recommend complete replacement of all domestic water

pipng, valves and accessories. New backflow flow preventer will be required at the main supply line.

#### Domestic Hot Water Service

The domestic hot water needs of the building are primarily supported by an electric water heater located in the boiler room. The water heater is AO smith, 60 gal, 5 KW water heater. We also noticed small 10 gallon electric water in each toilet room for instantaneous water supply to lavatories. The kitchen has its own 30 gallon electric water heater to supply 140F of water to the kitchen appliances.

No problem with pressure, quality and hot water temperature were reported during our site visit. However, due to the pipe age, there is a probability that the water service line could be deteriorated and lead containing solder may exist in the fittings or contain high lead content brass pipe. We recommend pressure test and water quality test and monitored for any possible lead contamination. If the project involves substantial renovation, we would recommend complete replacement of all domestic water piping, valves and accessories. There does not appear to be a two temperature system which would be required to satisfy code requirements for occupant fixtures (bathroom sinks) to discharge hot water at a temperature no greater than 110-112°F for safety reasons, whereas the service fixtures (janitor's sinks, kitchenette sinks, etc) are required to have hot water temperatures in excess of 120°F for sanitation reasons. The two temperature tempering system can be addressed via a separate pipe system or locally at fixtures

#### Soil Waste & Vent

The soil piping observed was a combination of extra heavy cast iron, with bell and spigot joints. Visible vents are galvanized steel with threaded fittings. The sanitary sewer flow is by gravity and the all the piping run below the slab and exit the building to a municipal sewer system. Majority of the piping in trench space are rusted with we noticed sign of leakage joints. The art room sink do not have a sediment interceptor and must be addressed for any renovation work.

#### Roof Drainage

The roof drains consisted of cast metal dome tops, flashing clamps/ gravel stops and cast iron bodies. Piping observed was No-Hub cast iron soil pipe and fittings. We did observed water puddle in some area of the roof. It may be due to improper roof slope or blockage in roof drain grid cover. Replacement of all roof drain cover is recommended. We were informed that the facility had a storm water backup problem particularly near the area drain at courtyard level. Complete video pipe inspection and pipe cleanup will be required to inspect and repair piping back to the site catch basin.

#### Fuel Utilities

The facility has natural gas for heating. A 6" diameter gas pipe enters the boiler and supply gas to two gas fired boiler. Natural gas is also used to service emergency generator. Kitchen appliance has electric feed for the cooking.

Plumbing Code Deficiencies and Improvement Summary

During a substantial renovation and addition project, code would require that all the water closets, lavatories, etc. be modified to be of the water conservation type and that of those a certain percentage would need to be ADA complaint. In addition, water of the appropriate temperature would need to be supplied to fixtures whether by a two temperature piping system or through the use of tempering valves and/or fixtures. The main cold water supply shall be protected with the back flow preventer.

Due to the age of the water piping, we consider it mandatory to replace all the domestic cold water and hot water piping within the building. This would also include replacement of the indirect hot water system so as to not need to rely on the buildings heating boilers in the warmer months.

Horizontal above and underground waste and storm piping should be changed during a substantial renovation due to its age and its susceptibility for excessive corrosion. In addition, new fixture layouts will most likely require replacement of most of the piping.

**Fire Protection**

There is no active fire suppression system in the Angier Elementary School building. Building has no automatic sprinklers, no hose cabinets, no corridor fire extinguishers or fire department standpipes present

Fire Protection Code Deficiencies and Improvement Summary

If the existing building is renovated to any substantial degree, the entire building needs to be upgraded with fire suppression system per latest Massachusetts Building Code 780 CMR Chapter 9. A new 6" dedicated fire service to the building will be required from the site and which than feed the automatic fire sprinkler system covered throughout the building. Hydrant flow test will be required from the nearby site hydrant and to determine whether the fire pump for fire protection is required or not.

**Kitchen and Servery Design Overview**

The existing Kitchen Area is very undersized and not located adjacent to the eating area (within the corridor of the lower level of the school) and is sized only as a warming kitchen with a serving table, sinks, refrigerator/freezer and small oven. The kitchen layout will need to be revised to service the requirements of the school for the future and brought up to all building codes.

The new facility shall include all the necessary components of a functional kitchen including a receiving area to be used as a staging point for the breakdown and distribution of delivered goods. Refrigerated rooms for the bulk storage of refrigerated and frozen products are to be offered and sized to accommodate the needs of the facility. Dry goods storage shall also be made available for the keeping of canned, boxed, and other non-refrigerated food items. Food grade storage shelving and dunnage platforms shall be provided for dry goods storage.

Food preparation shall take place on stainless steel tables of various sizes and configurations. Tables may be fashioned with sinks, drawers, shelves, and overhead pot storage hooks. Motorized food preparation equipment such as a food slicer, food cutter, and mixer shall be provided. Sizing of this equipment is based on the scope of food preparation.

Cooking shall take place in a central location adjacent to both food storage and preparation. Equipment shall consist of standard pieces such as a convection oven, braising pan, steamer, fryer, grill, and open burner range tops. Special items like a pizza oven and induction burners are also provided.

Ware washing will take place as two separate functions, pot washing and dish washing. A three compartment sink with equal sized drain-boards will provide a place for washing and sanitizing heavily soiled pots and pans. A dish machine will be used for washing and sanitizing trays and utensils. Mobile storage shelving for storing clean wares will be placed at various locations throughout the kitchen.

Serving will allow for orderly and secure serving of food products. Counters are grouped into multiple hot and cold food stations. These stations shall include the necessary equipment needed to prepare food to order.

All traffic will funnel into a common area large enough to accommodate the flow of traffic where the payment transaction is to take place. A mobile cashier's station with a tray slide will be provided to accept a "Point of Sale" terminal where customers can pay with cash or credit card. This station is intended to be moved into the servery after hours and secured.

Additional facilities located in the kitchen will include a chef's office, staff toilet rooms for men and women and a dedicated kitchen janitor's closet with enough space for a mop sink, storage of mops, buckets and a detergent cabinet. Also grouped with this equipment are employee lockers for the storage of personal items like coats, handbags, or shoes.

**Asbestos-Containing Materials (ACM)**Asbestos Management Plan Assessment

- A. Building assessment survey is being conducted the week of December 26<sup>th</sup>, 2012 and will be provided with final study submission.

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## **PART 5: SITE DEVELOPMENT REQUIREMENTS**

### INTRODUCTION

The Angier Elementary School is located on an approximate 1.9 acre site bordered by Beacon Street to the south, MBTA Green line train tracks to the north and the Waban Park (approximately 4.83 acres) to the northwest of the school site. The City was given the Waban Park property in 1912 subject to a public trust that requires the City to hold and maintain the land as a public playground.

The majority of the site is relatively level from the front to the rear of the back parking lot, and then slopes steeply down approximately 15 feet to the abutting railroad right-of-way. The slope is wooded and a chain link fence runs along the top of the steep slope at the north side of the parking area.

Two (2) playground areas, one to the west (on the Waban Park property) and the other to the east are located at the school. The play areas appear to be fairly new and could potentially be salvaged and reused should the District choose to re-use them. Students utilize the outfield area of the adjacent Waban Park as a free play area. There is a basketball hoop located at the front of the school.



### **SITE ACCESS AND ACCESSIBILITY**

School parking is located off of Beacon Street with access from a single entry/exit. Emergency vehicles can also access the school site from the access drive to the adjacent church and access three (3) sides of the school.

Parent drop off occurs along Beacon Street. Buses drop-off and pick-up is located in a driving lane in front of the school, separated by a fence and landscaping and parallel to Beacon Street.

Sidewalks and paving connect the school property to the neighborhood sidewalks. Sidewalks are a combination of concrete and bituminous paving.

### **EMERGENCY VEHICLE ACCESS**

Currently, emergency vehicles access the school site from the access drive to the adjacent church and access three (3) sides of the school.

#### **Considerations During Study**

The new elementary school will have a 360-degree access for fire and emergency access.

### **PARKING**

There are approximately 43 parking spaces on the site of which two (2) are designated as accessible parking spaces. MAAB and ADA require three (3) accessible spaces including one (1) van accessible space. Neither of the two (2) accessible parking spaces complies with the dimensional, aisle and signage requirements of the current ADA and MAAB code.

#### **Considerations During Study**

The site plan for any option of the proposed project will include separation of buses and parent drop-off. This will provide safe environment for the students as well as safer drop-off/pick-up for the parents.

### **UTILITIES**

Water, storm drainage, electrical power, natural gas and city sewage are presently available from Beacon Street.

### **FACILITY SERVICE**

Service for the existing Angier School is to the rear of the building.

#### **Considerations During Study**

All new construction options will include a safe route to the delivery area of the new elementary school to provide adequate service for food service and general deliveries.

### **CODE ISSUES AND LIMITATIONS**

The site is flat and all pedestrian paving areas appear to meet the minimum slope requirements as required by ADA and MAAB.

#### **Considerations During Study**

The reconfiguration of driveway and site will improve vehicular access and parking.

## **ZONING ISSUES AND LIMITATIONS**

The Waban Park abuts the Angier School site. The entire area of Waban Park (except for the portion which has a steep grade immediately adjacent to the MBTA tracks) is in active recreational use. The City was given this property in 1912 subject to a public trust that requires the City to hold and maintain the land as a public playground. However there is no intent for the school building to be constructed on this parcel.

There are no Wetland Resource Areas under the Mass. Wetlands Protection Act on or near the subject site, including Bordering Vegetated Wetlands, Banks, Land Under Water Bodies, Land Subject to Flooding and Riverfront Areas. Also there are no protected areas subject to the Newton Floodplain / Watershed Protection Ordinance (Chapter 22, sec 22-22) on or near the subject site.

### **Considerations During Study**

The proposed area of design of the building will remain within the limits of the Angier School site so no zoning waivers are required.

## **LANDSCAPING**

A variety of deciduous and evergreen trees are located in the front of the school, none of which are specimen trees. Two (2) white pine trees screen the view of the school from Beacon Street.

Six (6) deciduous trees are located along the shared property line of the single family home to the west, creating a buffer. One tree is growing at an angle into the school property. This tree should be removed.

Dense deciduous trees buffer the school from the MBTA tracks located to the north.

A grove of approximately twelve (12) oak trees are scattered amongst the play area to the east of the school. If there is construction in the area, efforts should be made to protect and save the major trees that are located along the shared property line with the church.

## **GEOTECHNICAL EVALUATION**

The predominant material lying below the fill or ground surface depending upon location is a stratified sand that ranges from very fine sand, fine to medium sand and gravelly sand as described on the attached logs. The material is medium dense. However in one location, dense glacial till was encountered at a depth of approximately 34 feet BGS. The till consists of some fine to coarse gravel, some fine to coarse sand with some silt.

## **ATHLETIC FIELDS / OUTDOOR EDUCATIONAL SPACES**

A public softball field and soccer field are located within Waban Park to the west of the school, which the school shares. The lawns are in fair condition. There is no accessible walk to the fields.

Public basketball and tennis courts are located to the west of the school as well.

There are swings and play structures within the park. The play equipment appears to be fairly new and could be reused if a new school is constructed. The surface under the play equipment does not meet the MAAB requirements as an accessible surface.

### **Considerations During Study**

The continued shared use of the Waban Park for athletic fields and outdoor educational spaces will be assumed during the study. The school and the Park have co-existed for 100 years with compatible uses.

### **SITE ORIENTATION, LOCATION CONSIDERATIONS AND ISSUES**

The size and configuration of the available site poses a challenge in optimizing the orientation of an approximately 75,000 SF new elementary school. Maximizing North/South orientation of the classrooms is an important objective. This will afford the most usable and controllable natural day lighting of these spaces, which is beneficial from an indoor environmental stand point and will, through the use of daylighting controls of the classroom lighting system, realize significant electrical energy savings.

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## **PART 6: PROPOSED LIST OF ALTERNATIVES**

### INTRODUCTION

Based upon the educational program, initial space summary, evaluation of existing conditions and site development requirements, a list of preliminary alternatives have been developed.

The new construction alternatives satisfy the Educational Program, Standards and Policies and are in line with the MSBA guidelines.

The renovation/addition alternatives do not satisfy the Educational Program, Standards and Policies nor are they in line with the MSBA guidelines. The limitations of the existing site coupled with the existing structure result in a compromise to the educational program and would not provide a cost savings compared to new construction.

As part of the process and in addition to evaluating new construction and renovation/addition options, the following items were evaluated and considered.

### SCHOOL ASSIGNMENT PRACTICES

The only available space in the District is the Carr School, however it is not in the Angier District. Further, the Carr School has been designated as temporary space for the District's Master Plan to update many of their elementary schools. Like the Angier School, many of the elementary schools will not be able to be updated while occupied; therefore the Carr School is a critical component for the District's Master Plan.

All other Newton Public Schools are at or over capacity so alternatives such as re-districting or using vacant space in another school facility do not exist. In fact, many of the other 14 elementary schools are considering modular classrooms because they are currently over capacity.

### TUITION AGREEMENTS

Each year School Committee members consider whether Newton should be in the School Choice Program and accept school choice pupils from other districts during the upcoming school year. Newton is currently not a School Choice District for the 2012-13 school year. The only program Newton Public Schools currently participates in is the Metropolitan Council for Educational Opportunity (METCO) program.

### NO BUILD OPTION

The no-build option is not a consideration for the Angier Elementary School. The existing 50,000 SF school constructed circa 1912 is approximately a third smaller than the educational program requirements based on the design enrollment of 465 students. Further, the sizes of many of spaces are woefully inadequate based on today's standards and the number of students in each class. There are a limited number of special education spaces that do not meet program needs. Lastly, there is no cafeteria and an inadequately sized gymnasium. Refer to PART 3 – INITIAL SPACE SUMMARY for a detailed comparison of the existing spaces to the required needs of today's educational program.

## **ALTERNATIVE SITES**

As part of the analysis undertaken, 3 alternative sites within the boundaries of the Angier Elementary School district were considered. One of these sites is privately owned and not currently available for sale while two sites are owned by the City of Newton. The two sites owned by the City are under the custody and control of the Parks and Recreation Commission and require receiving Article 97 approval for any use other than open space. The detailed review of the alternative sites is appended to this SECTION. In summary, the Newton Law Department has concluded that neither of these two playground sites should be considered as available alternative sites for the Angier School.

## **RENOVATION / ADDITION / NEW CONSTRUCTION**

As a result of the above, many concepts have been evaluated for renovation and addition to the existing facility as well as new construction on the same site. The options demonstrate a renovation/addition solution is possible, however it compromises the ideal educational program for the Angier School. In addition, the spatial relationships, adjacencies and efficiency factor further demonstrates that a renovation/addition option is not ideal. Many new construction concepts have also been evaluated. Although at the preliminary stages of the feasibility study, it is clear that new construction will provide the desired educational program in a more efficient manner. In addition, new construction provides the opportunity to design a facility to meet the educational program as well as make the most efficient use of the site.

The project team developed a comprehensive strategy and evaluation criteria matrix to evaluate the merits of various Strategies. This matrix was used by multiple Newton Committees (School Committee, School Building Committee, Design Review Committee and Board of Aldermen) to determine that a new facility on the existing site is the recommended approach to pursue. The Draft Options Analysis Summary is appended to this SECTION detailing the merits of each Alternative.

Angier Elementary School - Newton, MA				Options and Criteria Evaluation Matrix							
		● Favorable		⊖ Neutral		○ Unfavorable		Costs: \$0, \$, \$\$, \$\$\$		Not Viable	
Criteria	Note: All design options will meet current building codes.	Proposed Site Strategy Alternatives									
		Benchmark	A	B	C						
		Full renovation, no addition	Full renovation + addition	Full demo + new construction (existing site)	New construction (remote site)						
Building and Site Facts											
1	Student enrollment population	465	465	465	465						
2	Size of site (acres)	1.9	1.9	1.9	Varies						
3	Site acquisition cost	\$0	\$0	\$0	\$\$\$						
4	Site acquisition legal issues	●	●	●	Not Viable						
Cost and Schedule											
1	Relative capital cost	\$\$	\$\$\$	\$\$\$	\$\$\$						
2	Allows students to move in to new school Fall 2016	●	●	●	○						
3	Maintains project approvals schedule	●	●	●	○						
Educational											
1	Meets educational program for all students + design enrollment	Existing Building Cannot Fit Enrollment	⊖	●							
2	Provides flexibility for future growth		○	●							
3	Provides flexibility for educational innovations		○	●							
3	Optimizes configuration and adjacency of teaching spaces		○	●							
Community											
1	Provides accessibility to community used space		●	●							
2	Accommodates community program needs		●	●							
3	Accommodates Angier After School Program (AASP)		●	●							
Building											
1	Allows for a contextually sensitive design		●	●							
2	Allows efficient attainment of Green School/Stretch Code requirements		○	●							
3	Optimizes use of natural light and daylighting		○	●							
4	Optimizes connection of outdoor/indoor space, integration with site		○	●							
5	Meets ADA requirements efficiently		○	●							
6	Provides operable windows and indoor air quality for teaching spaces		●	●							
Site											
1	Maximizes efficient utilization of site		○	●							
2	Optimizes outdoor program space and green space		○	●							
3	Optimizes safety and efficiency of on site drop off		⊖	●							
4	Separates bus and automobile circulation		⊖	●							
5	Provides sufficient parking for teachers, staff + visitors		⊖	●							
6	Improves off site traffic impact		⊖	⊖							
7	Improves pedestrian safety and access		●	●							

print date: 12/13/2012

## PART 6 : PROPOSED LIST OF ALTERNATIVES

In addition to the Evaluation Matrix, cost considerations are important factors in determining the most cost effective solution for the Angier Elementary School. Below is a cost comparison of renovation/addition and new construction.

### SUMMARY

OPTION	Program Area	Gross Square Footage	Construction Cost	Project Cost	Duration / Year Complete
<b>Option A</b> Renovation/ Addition	49,075 NFA	84,320 GSF	\$32,470,540	\$40,588,175	18 months Bldg + site / 2016
<b>Option B</b> New School	49,973 NFA	75,000 GSF	\$29,400,000	\$36,750,000	18 months Bldg + site / 2016

1. Design capacity = 465 students for Renovation/Addition and New Construction
2. Construction Cost
  - a. CM@Risk for Renovation/Addition and New Construction
  - b. School and site vacated for Renovation/Addition and New Construction
  - c. Renovation cost / SF = \$380/SF
  - d. New construction cost / SF = \$392/SF
  - e. Construction cost inflated for mid point of construction
3. Project Cost = Construction cost x 25% soft costs

Based upon education, safety, site design and cost considerations of the options presented, it is the District's preference to further evaluate a new school on the existing Angier Elementary School site to bring forth a Preferred Schematic Design to the MSBA.



LAW DEPARTMENT



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CITY HALL

1000 COMMONWEALTH AVENUE  
NEWTON CENTRE, MA 02459  
TELEPHONE (617) 796-1240  
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CITY SOLICITOR  
DONNALYN B. LYNCH KAHN

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MARIE M. LAWLOR  
ANGELA BUCHANAN SMAGULA  
ROBERT J. WADDICK  
MAURA E. O'KEEFE  
JEFFREY A. HONIG  
ALAN D. MANDL  
JULIE B. ROSS

**REVIEW OF ALTERNATIVE SITES  
FOR  
ANGIER ELEMENTARY SCHOOL PROJECT**

As part of the analysis undertaken in connection with the Options and Criteria Evaluation Matrix for the Angier Elementary School Project, the Law Department reviewed 3 alternative sites within the boundaries of the Angier Elementary School district with sufficient lot area to support the Angier Elementary School program. One of these sites is privately owned while two are owned by the City of Newton.

**Privately Owned Alternative Site**

The former St. Phillip Neri Catholic Church is located at 1521 Beacon Street, Waban. The site, containing 69,050 sq. feet, is owned by the Roman Catholic Archdiocese of Boston and is presently improved with a church building and parking lot. While the church building is closed, as is the parish of St. Phillip Neri, the Archdiocese has not yet decided if it will sell this property. The Law Department concluded that this site should not be considered available for purchase at this time.

**City of Newton Alternative Sites**

The Parks and Recreation Commission has custody and control of two playgrounds within the Angier Elementary School district.

The Lincoln Playground is located on Montclair Road and contains approximately 236,000 sq. feet. The entire area of Lincoln Playground is in active recreational use. The City purchased the property in 1953 for "playground purposes." Approximately 20% of the purchase price came from donations received by the City from residents in the Waban area to be used for purchase of the land as a playground. In order to change the use of the Lincoln Playground from a playground to a school, the Newton Parks and Recreation Commission would have to declare the property available for transfer to the School Department, and the City would have to receive Art. 97 approval from the General Court.

The Angier Playground abuts the Angier School site and contains approximately 205,000 sq. feet. The entire area of Angier Playground (except for the portion which has a steep grade immediately adjacent to the MBTA tracks) is in active recreational use. The City was given this property in 1912 subject to a public trust that requires the City to hold and maintain the land as a public playground. Accordingly, in addition to action by the Parks and Recreation Commission making this property available for transfer to the School Department and Art. 97 approval, the City would also have to file a Cy Pres action and receive permission from the Probate Court to terminate the public trust imposed on the Angier Playground by its donors. Following discussions with the Attorney General's Office, Public Charities Division, the Law Department concluded that a Cy Pres petition would be unsuccessful. The Attorney General's Office declined to support even a limited Cy Pres petition that would have relocated the Angier School to the playground site and the Angier Playground to the school site.

Based on the above analysis, the Law Department concluded that neither of these two playground sites should be considered available as alternative sites for the Angier School.

Submitted By,

A handwritten signature in dark ink, appearing to read "Ouida C.M. Young", written over a circular stamp or seal.

Ouida C.M. Young  
Associate City Solicitor

Dated: December 18, 2012

## **Preliminary Design Program Submission: Draft Options Analysis Summary**

The project team collaborated with multiple Newton committees to develop a comprehensive range of site strategy alternatives and evaluation criteria which created a framework against which to objectively assess the relative merits of each option. The results of this analysis are illustrated in the Options and Criteria Evaluation Matrix and are summarized below.

### Proposed Site Strategy Alternative: Benchmark

The existing Angier Elementary School facility is nominally 50,000 GSF, whereas the space program to fit the approved design enrollment is nominally 75,000 GSF. Therefore, it would be impossible to simply renovate the existing facility and meet the educational requirements, no matter what the scope or budget. The Full Renovation with No Addition approach is therefore labeled as Benchmark and is not evaluated across other criteria because it would be categorically impossible to make it work.

### Proposed Site Strategy Alternative: A

This approach is to fully renovate the existing Angier Elementary School building and construct an addition to achieve the required net program area. The existing facility would require a significant gut renovation to bring the facility up to current codes, to render it accessible and to meet green school objectives. The existing classrooms are considerably under sized, therefore, convoluted and expensive measures would need to be taken to expand these critical educational spaces, including “bump-outs” at the perimeter. The only feasible location for an addition would be in front of the existing structure, which would substantially or completely obscure the main façade, so the potential benefit of historic preservation could not be achieved. The limitations of the existing structure would not allow even a comprehensive renovation to achieve desired sizes, shapes or adjacencies for major program spaces. Although technically feasible, it was determined on analysis that a renovation plus addition approach would result in compromises to the educational program, would not reduce capital costs, would increase operating costs, and would not be preferable on any evaluation criteria.

### Proposed Site Strategy Alternative: B

This approach is to fully demolish the existing facility and construct a new building on the same site. A new structure could be located, oriented, sized and proportioned to optimally support the program and vision for the future delivery of elementary education in Newton. The designer has created multiple concept plans and has verified that a new building can fit on the site and achieve desired configurations and relationships among educational spaces while meeting exterior program requirements for vehicular drop off/pick up, parking, pedestrian access, gathering, outdoor play, service/delivery, emergency access and visual buffer. Upon review and analysis with multiple Newton committees including the School Committee, School Building Committee, Design Review Committee and Board of Aldermen, it was unanimously determined that construction of a new facility on the existing site is the recommended

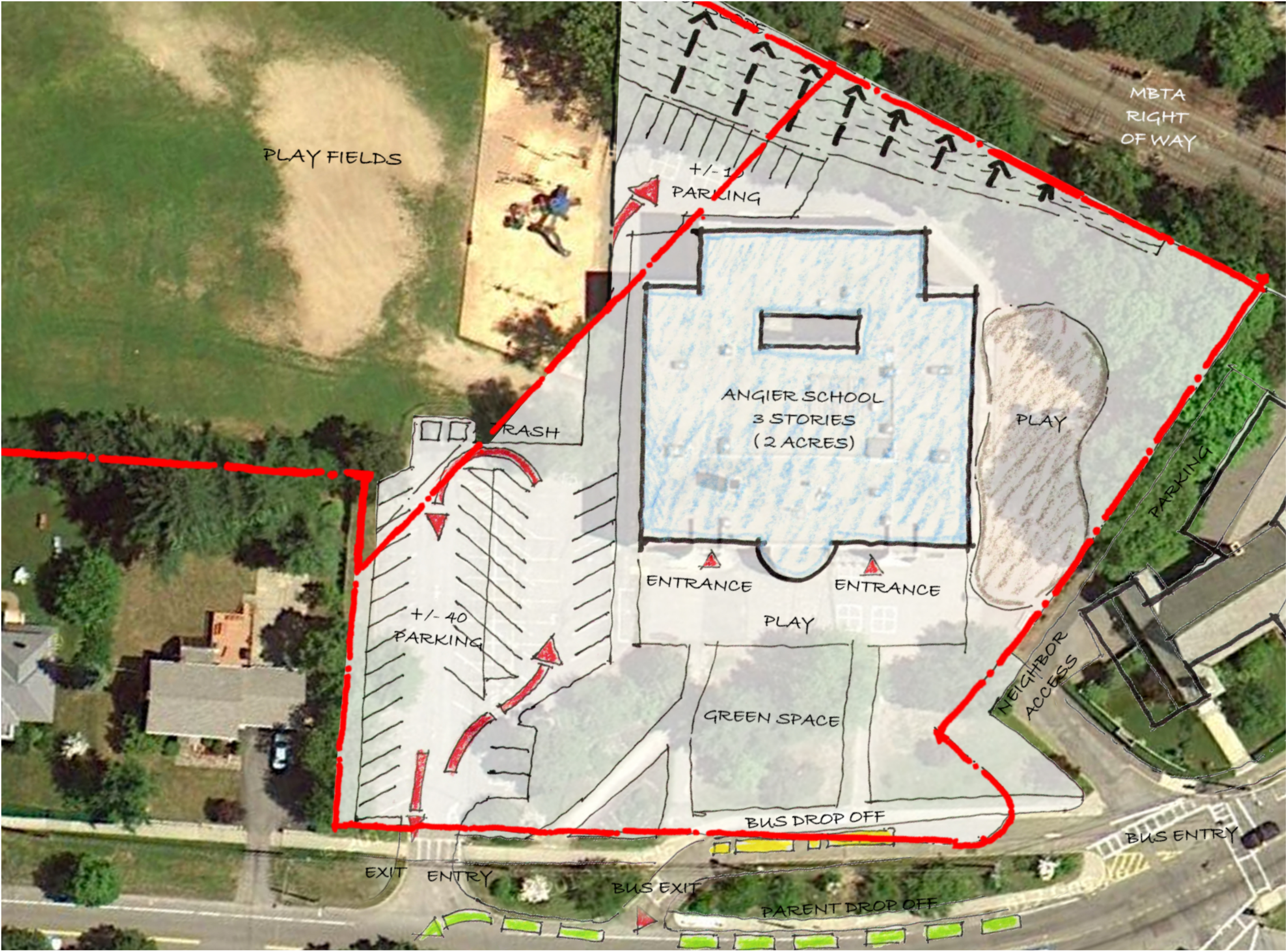
direction to pursue. The design team has developed multiple alternatives for how best to design and position a building on the site, and these schemes will be further developed and evaluated in the next phase to determine the preferred option.

#### Proposed Site Strategy Alternative: C

This approach is to explore the possibility of an alternate site, other than the location for the existing school facility. All property owned by the Newton School Department is currently in full use for educational purposes, so there are no obvious available alternate sites to consider for the new Angier school project. However, Newton identified three properties within the Angier School geographic enrollment boundary to consider for acquisition and development. The Associate City Solicitor reviewed each site in detail and determined that there were considerable legal, logistical and cost hurdles for all of these options. These alternative locations also did not appear to offer any advantages in terms of site planning or building design relative to the existing Angier site. Therefore, the City and the Project Team determined that it was not viable to pursue alternative sites because to do so would result in unacceptable delays to required MSBA submittals and would not allow project completion in time for the start of the 2016 school year.

The City of Newton has developed, under a separate parallel project, a substantial swing space at the Carr School which will be available for occupancy as an Elementary School by the end of Spring 2014. This will allow the existing Angier site to be completely vacated during demolition and construction. Therefore no phasing issues have been considered as critical criteria in this analysis.





Angier  
Elementary  
School

Newton, MA

Feasibility Study

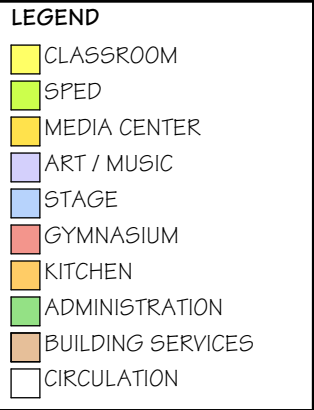
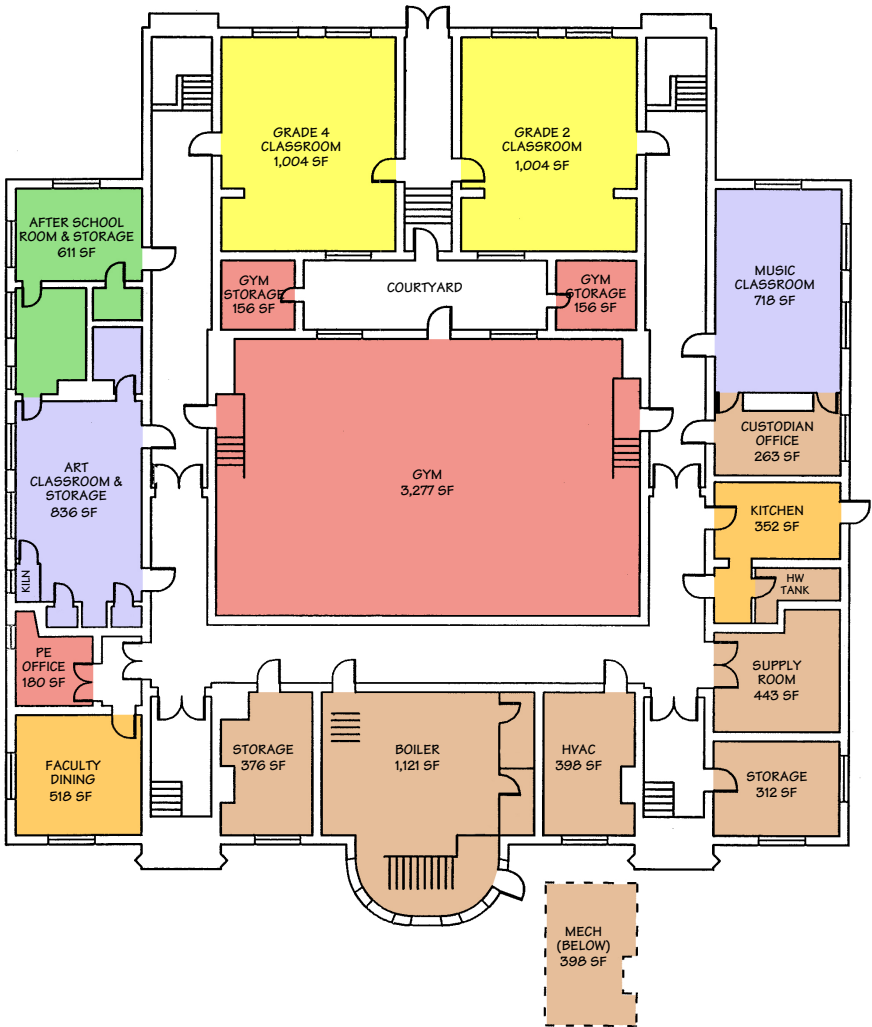
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**SITE PLAN**



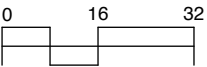
EXISTING PROGRAM

BASEMENT PLAN



GROSS SQUARE FOOTAGE

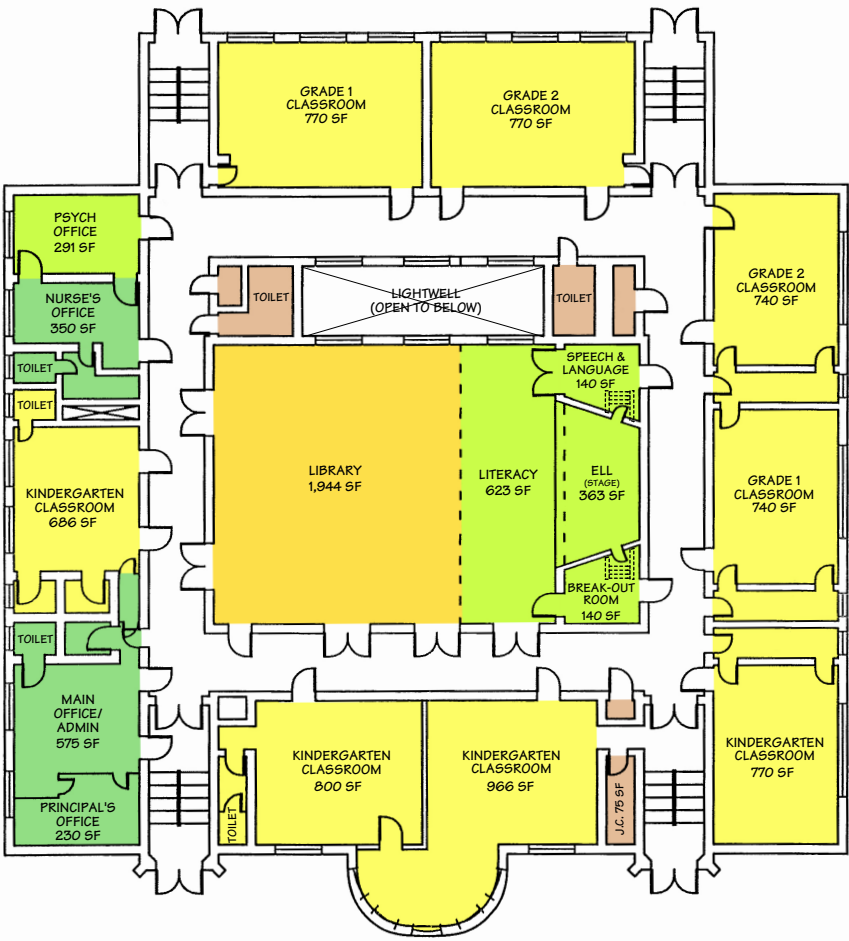
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FIRST FLOOR	18,080 SF
SECOND FLOOR	15,360 SF
TOTAL	52,940 SF



03 December 2012

EXISTING PROGRAM

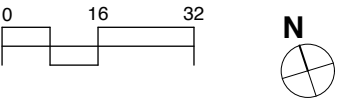
FIRST FLOOR PLAN



**LEGEND**

- CLASSROOM
- SPED
- MEDIA CENTER
- ART / MUSIC
- STAGE
- GYMNASIUM
- KITCHEN
- ADMINISTRATION
- BUILDING SERVICES
- CIRCULATION

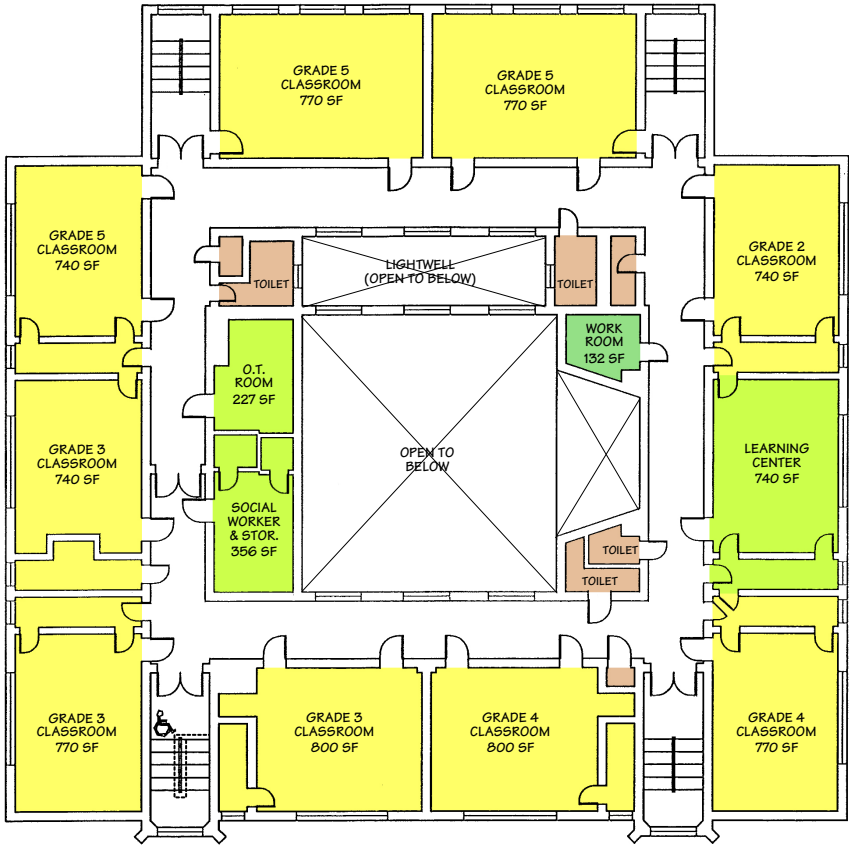
GROSS SQUARE FOOTAGE	
BASEMENT	19,500 SF
FIRST FLOOR	18,080 SF
SECOND FLOOR	15,360 SF
<hr/>	
TOTAL	52,940 SF



03 December 2012

EXISTING PROGRAM

SECOND FLOOR PLAN

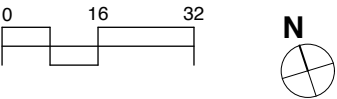


**LEGEND**

- CLASSROOM
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- CIRCULATION

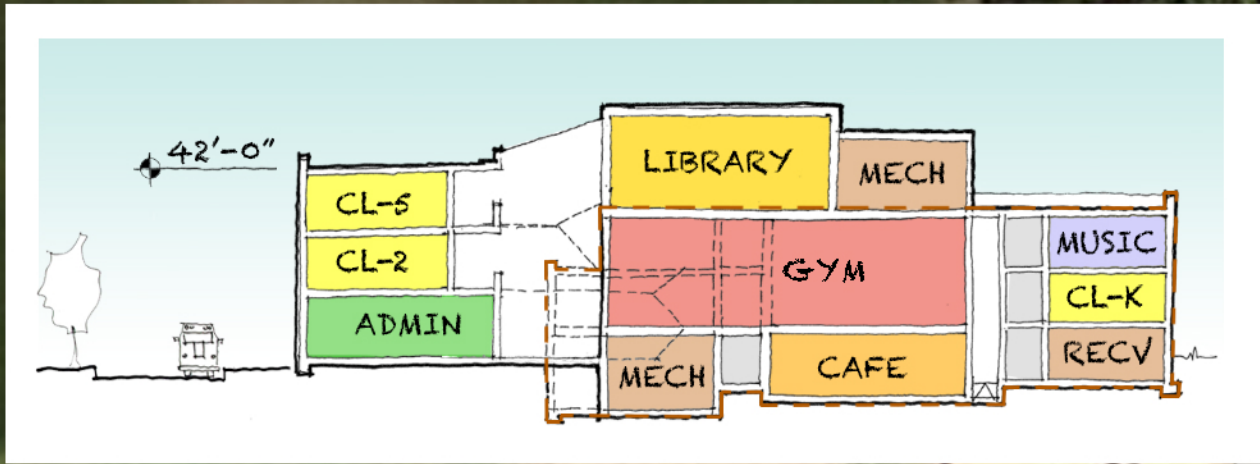
GROSS SQUARE FOOTAGE

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03 December 2012





Angier  
Elementary  
School

Newton, MA

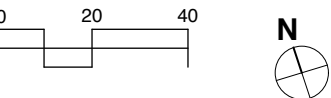
Feasibility Study

## RENOVATION ADDITION OPTION A.1 SITE PLAN

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<span style="display:inline-block; width:10px; height:10px; background-color:lightcoral; border:1px solid black;"></span>	GYMNASIUM
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### GROSS SQUARE FOOTAGE

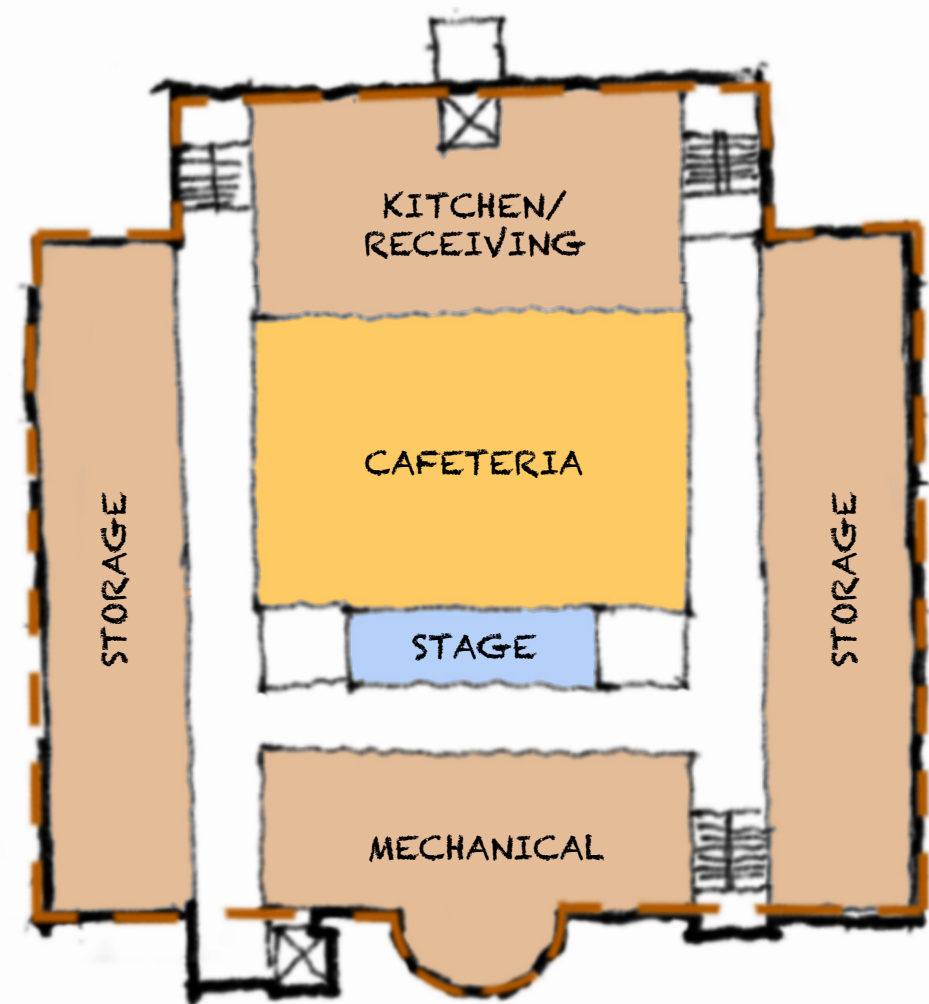
<b>BASEMENT (TOTAL)</b>	<b>19,530 SF</b>
RENOVATION	19,240 SF
ADDITION	290 SF
<b>FIRST FLOOR (TOTAL)</b>	<b>28,935 SF</b>
RENOVATION	17,720 SF
ADDITION	11,215 SF
<b>SECOND FLOOR (TOTAL)</b>	<b>20,970 SF</b>
RENOVATION	11,615 SF
ADDITION	9,355 SF
<b>THIRD FLOOR (TOTAL)</b>	<b>14,885 SF</b>
RENOVATION	0 SF
ADDITION	14,885 SF
<b>TOTAL</b>	<b>84,320 SF</b>



03 December 2012

*DiNisco Design Partnership*  
Limited  
architects and planners





Angier  
Elementary  
School

Newton, MA

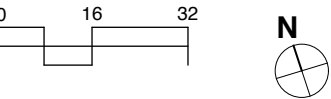
Feasibility Study

**RENOVATION ADDITION  
OPTION A.1  
BASEMENT PLAN**

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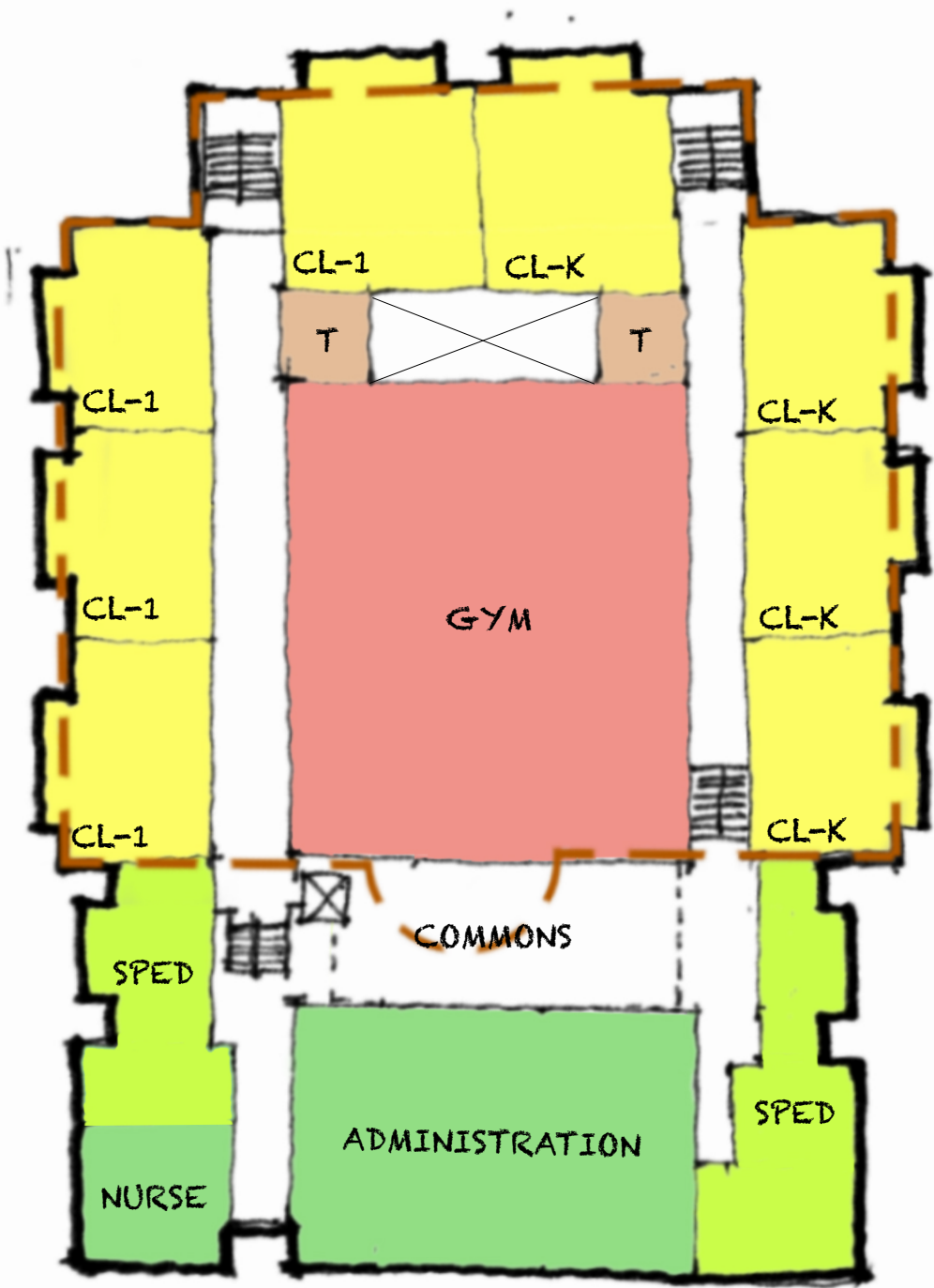
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<b>BASEMENT (TOTAL)</b>	<b>19,530 SF</b>
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RENOVATION	0 SF
ADDITION	14,885 SF
<b>TOTAL</b>	<b>84,320 SF</b>



03 December 2012

RENOVATION ADDITION  
OPTION A.1  
FIRST FLOOR PLAN

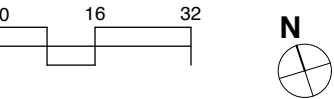


**LEGEND**

- CLASSROOM
- SPED
- MEDIA CENTER
- ART / MUSIC
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- GYMNASIUM
- CAFETERIA
- ADMINISTRATION
- BUILDING SERVICES
- CIRCULATION
- EXISTING

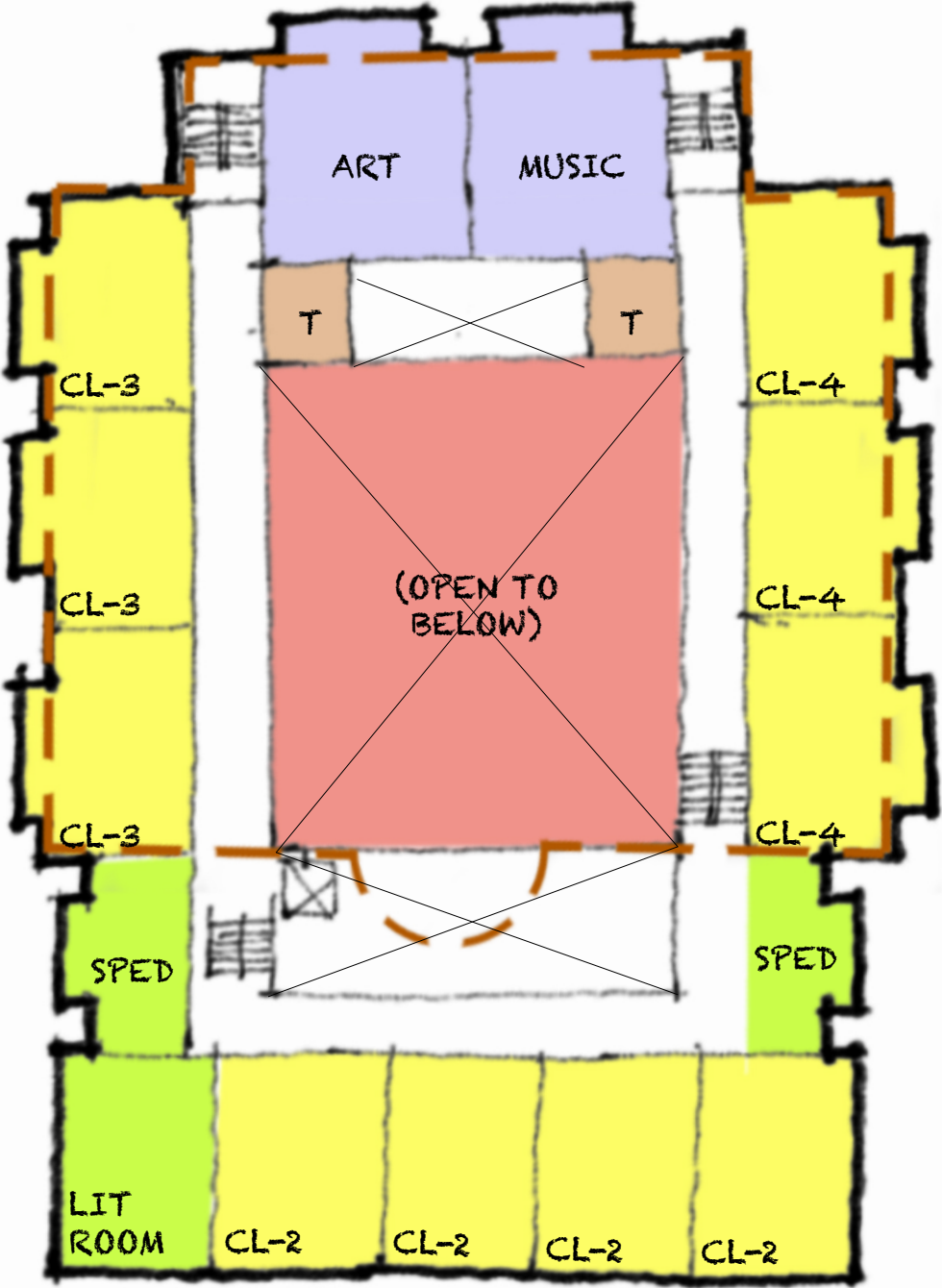
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03 December 2012

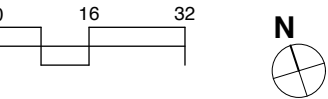
RENOVATION ADDITION  
OPTION A.1  
SECOND FLOOR PLAN



LEGEND	
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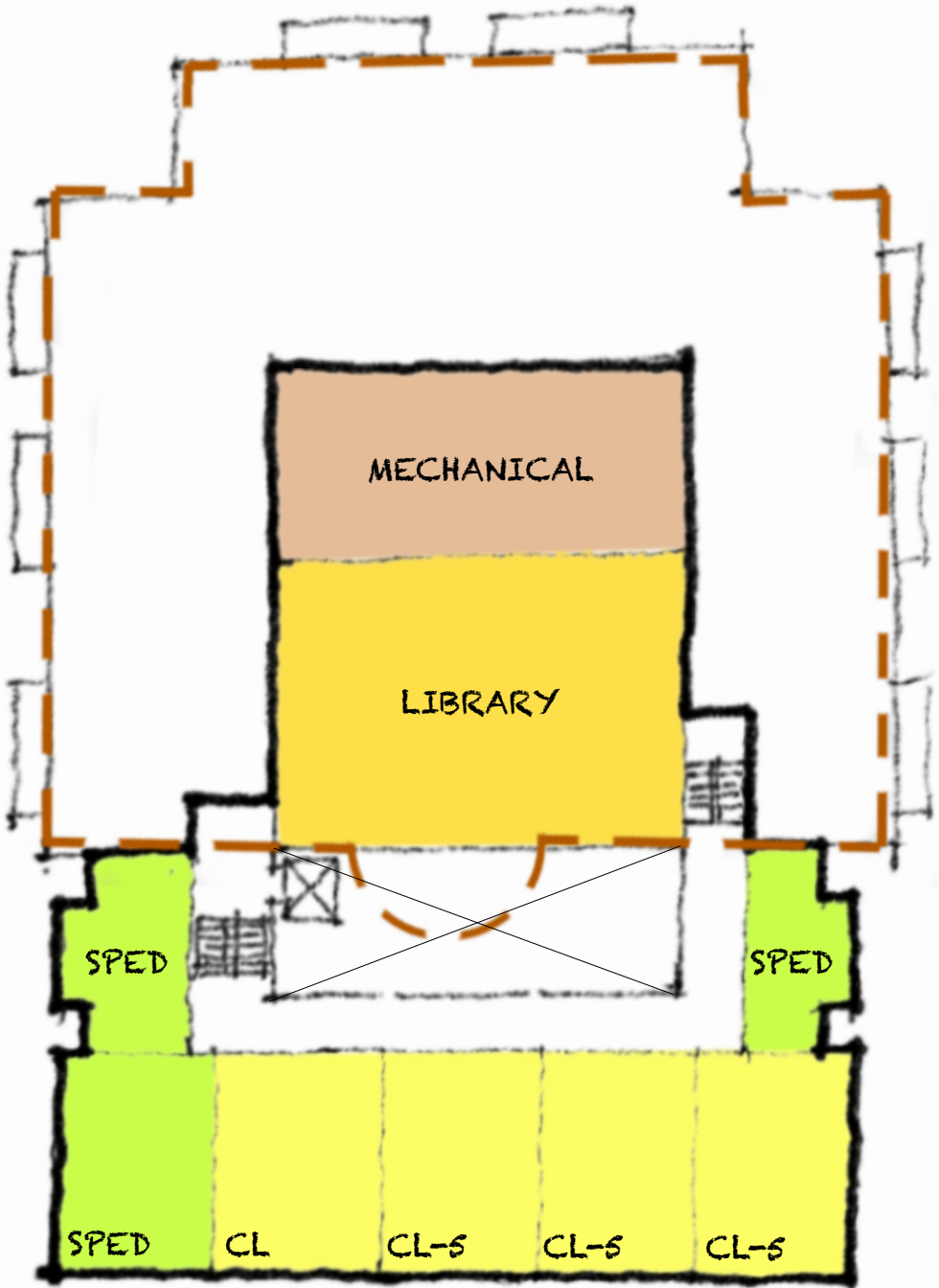
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03 December 2012

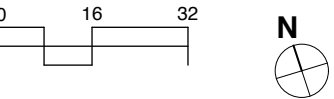
RENOVATION ADDITION  
OPTION A.1  
THIRD FLOOR PLAN



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<span style="display:inline-block; width:10px; height:10px; background-color:blue;"></span>	STAGE
<span style="display:inline-block; width:10px; height:10px; background-color:lightcoral;"></span>	GYMNASIUM
<span style="display:inline-block; width:10px; height:10px; background-color:orange;"></span>	CAFETERIA
<span style="display:inline-block; width:10px; height:10px; background-color:lightgreen;"></span>	ADMINISTRATION
<span style="display:inline-block; width:10px; height:10px; background-color:lightcoral;"></span>	BUILDING SERVICES
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GROSS SQUARE FOOTAGE











BASEMENT (TOTAL)	19,530 SF
RENOVATION	19,240 SF
ADDITION	290 SF
FIRST FLOOR (TOTAL)	28,935 SF
RENOVATION	17,720 SF
ADDITION	11,215 SF
SECOND FLOOR (TOTAL)	20,970 SF
RENOVATION	11,615 SF
ADDITION	9,355 SF
THIRD FLOOR (TOTAL)	14,885 SF
RENOVATION	0 SF
ADDITION	14,885 SF
TOTAL	84,320 SF

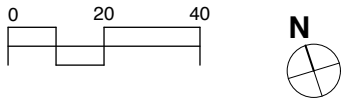


03 December 2012



**NEW CONSTRUCTION  
OPTION B.1  
SITE PLAN**

LEGEND	
	CLASSROOM
	SPED
	MEDIA CENTER
	ART / MUSIC
	STAGE
	GYMNASIUM
	CAFETERIA
	ADMINISTRATION
	BUILDING SERVICES
	CIRCULATION

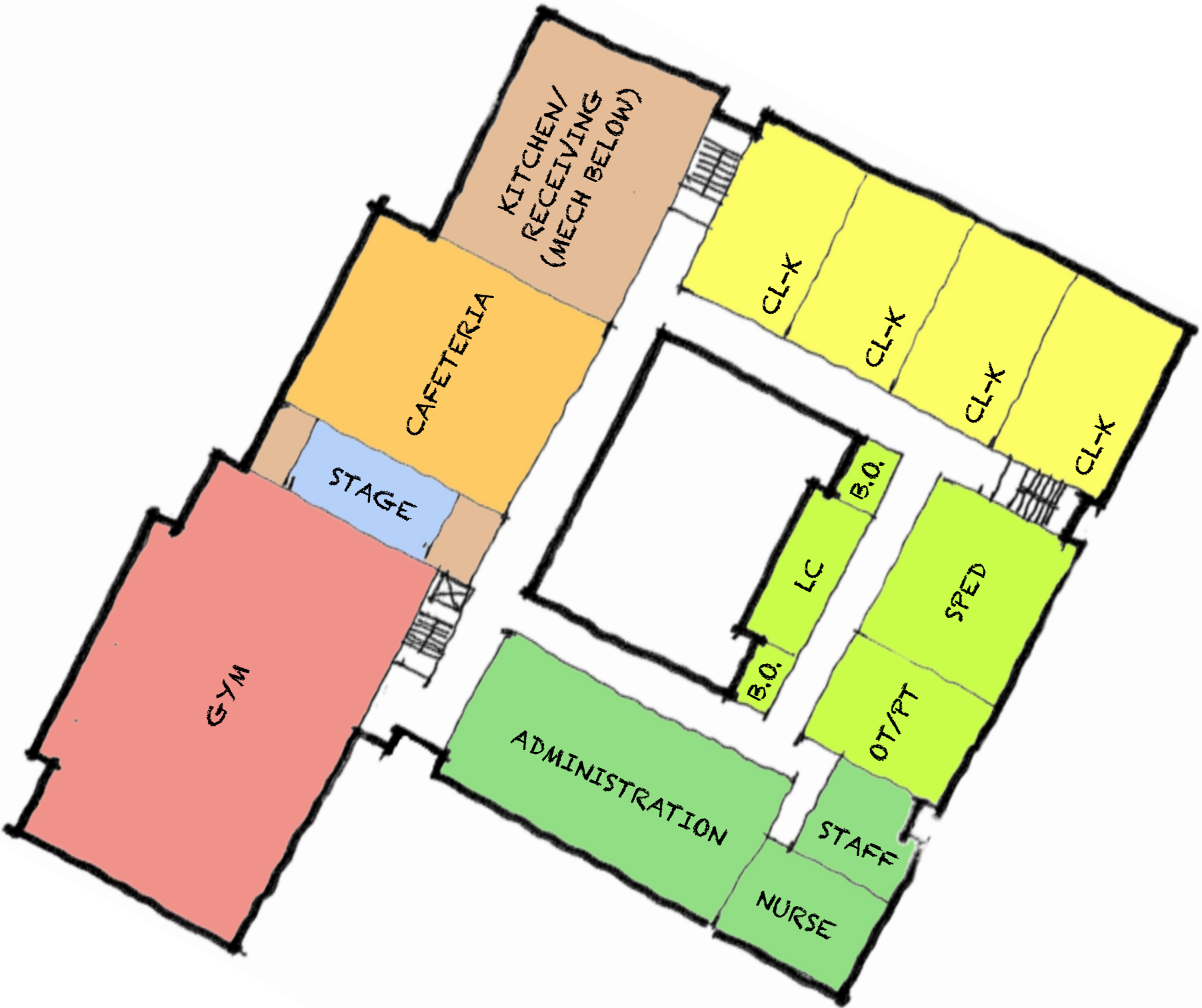


03 December 2012

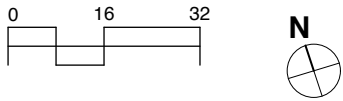




**NEW CONSTRUCTION  
OPTION B.1  
FIRST FLOOR PLAN**



LEGEND	
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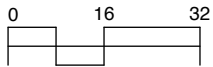


03 December 2012

**NEW CONSTRUCTION  
OPTION B.1  
SECOND FLOOR PLAN**



LEGEND	
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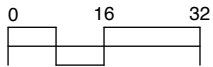
03 December 2012



**NEW CONSTRUCTION  
OPTION B.1  
THIRD FLOOR PLAN**













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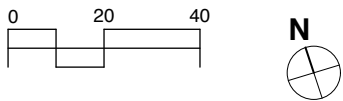


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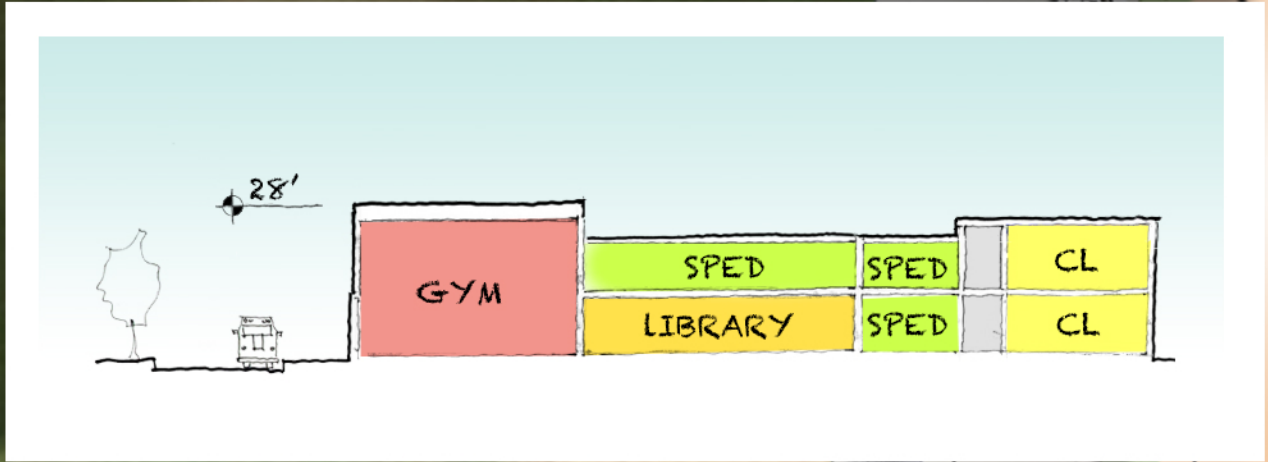


**NEW CONSTRUCTION  
OPTION B.3  
SITE PLAN**

LEGEND	
	CLASSROOM
	SPED
	MEDIA CENTER
	ART / MUSIC
	STAGE
	GYMNASIUM
	CAFETERIA
	ADMINISTRATION
	BUILDING SERVICES
	CIRCULATION

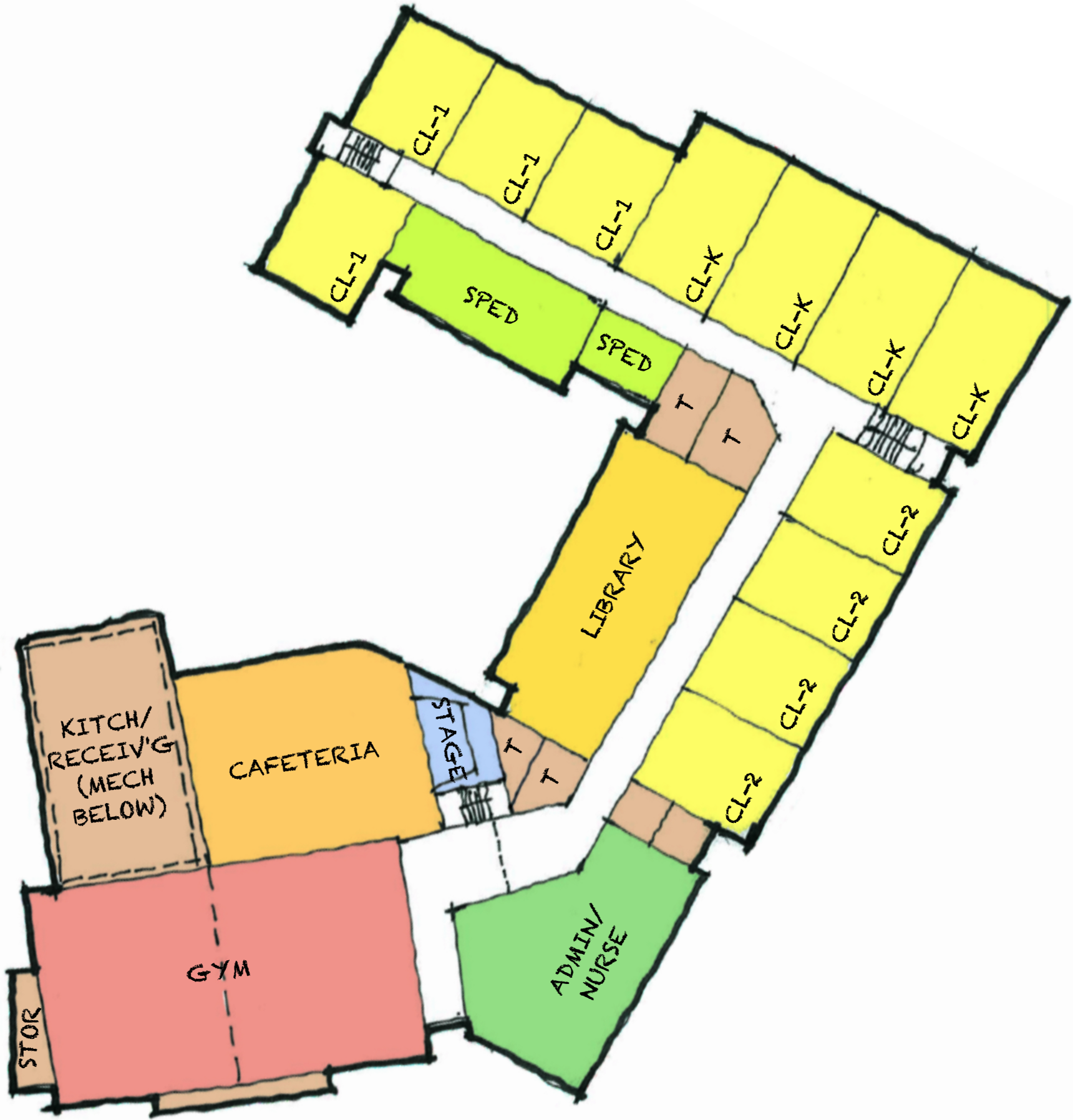


03 December 2012

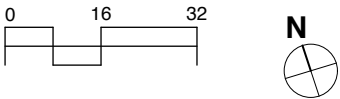




**NEW CONSTRUCTION  
OPTION B.3  
FIRST FLOOR PLAN**



LEGEND	
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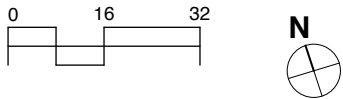


03 December 2012

**NEW CONSTRUCTION  
OPTION B.3  
SECOND FLOOR PLAN**



LEGEND	
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<span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span>	GYMNASIUM
<span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span>	CAFETERIA
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03 December 2012





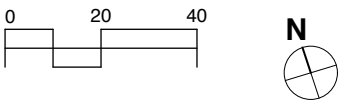
Angier  
Elementary  
School

Newton, MA

Feasibility Study

**NEW CONSTRUCTION  
OPTION B.5  
SITE PLAN**

LEGEND	
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03 December 2012

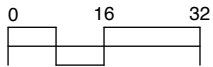
*DiNisco Design Partnership*  
Limited  
architects and planners



**NEW CONSTRUCTION  
OPTION B.5  
FIRST FLOOR PLAN**



LEGEND	
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<span style="display:inline-block; width:10px; height:10px; background-color:lightblue;"></span>	STAGE
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<span style="display:inline-block; width:10px; height:10px; background-color:lightcoral;"></span>	BUILDING SERVICES
<span style="display:inline-block; width:10px; height:10px; background-color:lightcoral;"></span>	CIRCULATION

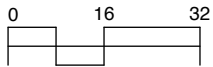


03 December 2012

NEW CONSTRUCTION  
OPTION B.5  
SECOND FLOOR PLAN



LEGEND	
CLASSROOM	CL-3
SPED	CL-2
MEDIA CENTER	CL-1
ART / MUSIC	CL-4
STAGE	CL-5
GYMNASIUM	CL-6
CAFETERIA	CL-7
ADMINISTRATION	CL-8
BUILDING SERVICES	CL-9
CIRCULATION	CL-10



03 December 2012





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## **PART 7: APPENDIX**

- Angier Elementary School Statement of Interest
  - MSBA Feasibility Study Invitation
    - Enrollment Certification
  - Capital Budget Statement
    - Project Directory
    - Project Schedule
- Meeting Agenda and Minutes



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## **PART 7: APPENDIX**

- Angier Elementary School Statement of Interest



ATTACHMENT A

STATEMENT OF INTEREST

CITY OF NEWTON BOARD OF ALDERMAN RESOLUTION:  
ANGIER ELEMENTARY SCHOOL STATEMENT OF INTEREST

## Massachusetts School Building Authority

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School District   NewtonDistrict Contact   Heidi Black TEL: (617) 559-9000Name of School   A E AngierSubmission Date   1/24/2011

### Note

**The following Priorities have been included in the Statement of Interest:**

1. ☐ Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.
2. ☒ Elimination of existing severe overcrowding.
3. ☐ Prevention of the loss of accreditation.
4. ☐ Prevention of severe overcrowding expected to result from increased enrollments.
5. ☒ Replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility.
6. ☐ Short term enrollment growth.
7. ☒ Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.
8. ☐ Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

**Potential Project Scope:**     Repair Project  
    HVAC/ Boiler  
    Others (Electrical)

**Is this SOI the District Priority SOI?**     YES

**The MSBA ID for the District Priority SOI:**     2011 A E Angier

**District Goal for School: Please explain the educational goals of any potential project at this school**

The City of Newton's goal is to have new or renovated schools that meet the school district's standards for teaching and learning. We seek to require high performance design elements that extend beyond minimum building codes. These standards promote: a school facility and site plan that advances the health and well being of users of the facility; a school that is efficient in its use of materials and resources and is easy to operate and maintain; a school that is safe and secure; a school that will accommodate future programmatic change while maintaining its standards of performance and reliability. Our expectation is that high performance standards utilizing proven technologies can create a state of the art school that will complement and fit well within the context of the site and surrounding neighborhoods, be a model of energy, water, and materials efficiency, and be cost effective to maintain over the lifetime of the building. Specifically, we look for the following: Educational Specifications •Core classrooms shall be 850 net square feet with sinks •Kindergarten classrooms shall be 1000 nsf with toilet rooms located within or nearby •Gymnasium shall be 3000 nsf (one station) in a school housing less than 400 students and 6000 nsf (two stations) in a school housing more than 400 students. In a larger building, a 6000 square foot gym will allow two classes of physical education to meet at the same time. •Dedicated After School Classroom, office and storage. •Special Education Programs,

including self-contained classrooms, resource rooms, and other ancillary support space, may total approximately 3500 square feet in a school housing less than 400 students, 7000 square feet in a school housing more than 400 students. While self-contained classrooms are housed at selected schools, other programs, offices and related support spaces, are required at all of Newton's elementary schools: •Speech & Language Program •Literacy & Reading Programs •ELL Program •Occupational and Physical Therapy Programs •Therapeutic Room and Observation •ABA ("Safe Room") •School Psychologist •School Social Worker •Small Group Tutorial Space •Library •Nurse's office •Principal's and general office with conference space •Workroom for copier, paper cutter, laminators •Teachers' room •Storage both general and specific (art) The following program areas that are not currently provided at all elementary schools are included in the educational specifications: •Cafeteria/Multi-purpose room with Stage •Kitchen •Dedicated Art and Music rooms, with the required storage Health, well-being, and student performance • Maximum access to natural daylight throughout the building • Superior ventilation • Superior acoustic environment • Reliable and flexible control of the internal environment • A design that feels welcoming throughout the facility • A building that enhances the functions of teaching and learning, including areas for chance encounters between students and adults and spaces that facilitate private student/teacher conferences • A design that is easy to navigate Efficient use of resources in building, operating, and maintaining • Evaluate design elements using life cycle costing to achieve the best possible building performance within the budget parameters. The life cycle cost should account for all measurable benefits including: •Reduced demand for natural resources (energy, water) •Lowered utility costs •Lowered operations and maintenance costs And consider the value of non-monetary benefits including building a school conducive to a healthy and productive learning environment. •Design should be determined and design elements specified according to: •Efficiency •Durability, longevity •Reduced consumption of energy, water, and resources •Low or no maintenance •Clear and reliable operations •Commissioned at the end of the building process to ensure the building operates as designed Safety and security • Ensure controlled access • Design that maximizes natural supervision of space Flexibility to accommodate change • Anticipate changing student/staff programmatic/spatial needs • Anticipate changing technology for major systems

**District's Proposed Schedule: What is the District's proposed schedule to achieve the goal(s) stated above?**

In order to reach the City of Newton's goal of providing new or renovated schools that meet the district's standards for teaching and learning for all students, the city government via the Mayor and the Board of Aldermen have approved the priority order of the SOI's for replacement elementary schools as well as schools which need repair and renovation. The School Committee has requested that the City fund feasibility studies for the two elementary schools with the highest priority for replacement as well as the study for the renovation and repair of the school building which will be used to house the students during the building and repair process. When this funding is approved by the required Finance, Facilities, and Programs and Services Committees and a vote of the Board of Aldermen, then the feasibility studies will inform the next steps in the school building process for the identified schools per the SOI's.

**Is this part of a larger facilities plan?** YES

**If "YES", please provide the following:**

**Facilities Plan Date:** 6/1/2007

**Planning Firm:** HMFH , Architects Inc.

**Please provide an overview of the plan including as much detail as necessary to describe the plan, its goals and how the school facility that is the subject of this SOI fits into that plan:**

The goal of the Long-Range Facilities Master Plan is to provide the City of Newton and the Newton Public Schools with space needs assessment, space standards, facility conditions, and long-range utilization plan for the 21 schools that in the near-term will accommodate the projected enrollment and in the long-term will be flexible to changes in demographics and needs. The study consists of educational and facility standards, enrollment projections, facilities assessment, and system-wide options. Sixteen buildings are greater than 50 years old and four of them are greater than 80 years old. Four buildings have undergone upgrades in the last 10 years. The facilities are tired and have code-related deficiencies. Many of the educational spaces do not meet today's standards. Educational standards were developed for elementary, middle and pre-school programs using MSBA guidelines as a reference to develop Newton-specific requirements to meet the needs of Newton's inclusive programs. Facility standards were developed to reflect the preferred materials and systems. These standards provide a benchmark to assess the existing educational spaces and facility conditions. In November 2007 and 2008, the Newton Public Schools developed enrollment projections, the elementary school enrollments are projected 5 years and middle school enrollments 10 years. Each building was assessed by the same group of professionals to ensure a consistent comparison and rating.

Based on the detailed and objective assessment of each property with regard to educational space needs, facility conditions, and enrollment projections, a numerical evaluation was assigned to each property, see Report. Assessment Questionnaires were completed by representatives of each school. The responses identify how well each building meets the physical space and educational needs of the programs and its occupants. Based on projected enrollment growth, facility assessments and educational standards, the study team developed three planning options. Parameters were established, such as no elementary school is to be greater than 500 students and that modular classrooms are to be considered only a temporary solution. Each option solves the projected enrollment growth and provides flexibility for reassessing the entire master plan over time. The options accommodate enrollment, replace obsolete and educational deficient facilities, and renovate and upgrade buildings to provide appropriate educational spaces and environments. Each provides the number of classrooms required to accommodate the projected enrollment, distributes the elementary population evenly between the north and south sides of the city, over the long term upgrades all the schools in need of improvement, and provides for future flexibility for decision making and on-going reassessment of the entire master plan. In June 2008, the Newton School Committee voted to proceed with Option 3. Option 3 proposes replacement of four elementary schools, renovation/additions to four elementary schools, renovation only of four elementary schools and three middle schools. The four elementary schools to be replaced are aged, obsolete and have the smallest classrooms in the system (three are greater than 80 years old). The buildings are centrally located allowing for greater ease of redistricting; two are among the smallest in the system and do not allow for ideal educational planning and are inefficient to operate; three are overcrowded; all are inadequate. Angier School is assessed at the highest level of facility condition and educational space needs. This reflects undersized classrooms, low net square feet of space per pupil, and minimal sizes and quantity of shared spaces. Many of the deficiencies are due to the age of the building. Educational requirements have changed dramatically in the past 80 years. Constructed in 1919, Angier is the oldest building in the Newton school system. There have been no major improvements; minor improvements include upgrades to fire alarm, telephone, and sound/intercom systems and lighting. Most interior finishes are original and therefore worn and/or do not meet current code requirements. The building has minimal accessibility for the physically disabled; there is a stair lift at one location that does not access all floor levels. Most classrooms are undersized (600 square feet) and are the smallest in the system. There is no cafeteria and no auditorium. The corridors are used for small group teaching spaces and lunch. The net square feet per pupil of 68 is low in comparison with MSBA guidelines of 113 NSF/pupil. Angier has no multi-purpose space or auditorium. Though the 5-year projected enrollment shows growth of just four pupils, Angier is currently overcrowded by 47 students and has been designated as the priority school in need of replacement.

**Please provide the current student to teacher ratios at the school facility that is the subject of this SOI: 21 students per teacher.**

**Please provide the originally planned student to teacher ratios at the school facility that is the subject of this SOI: 22 students per teacher.**

**Is there overcrowding at the school facility?** YES

**If "YES", please describe in detail, including specific examples of the overcrowding.**

The overcrowding issues at the Angier Elementary School have a direct impact on student learning and instructional best practices. Due to overcrowding issues and space constraints, over the years, Angier teachers and specialists have become very creative finding spaces to teach. Many of these "spaces" are tables in the hallway, small closet areas without adequate ventilation or windows, and the wings off of the library stage. Small group and individual instruction takes place in the hallway, this is a distracting environment and potentially stigmatizing for the students.

The impact on student learning is real. For the students with learning issues and on IEPs, optimal learning is not taking place due to overcrowding and the lack of proper space. There is no private, quiet space for students to focus on learning. Many teachers cannot hold morning meetings where the whole class sits on the floor for lack of space in the classrooms.

Angier is an integrated school, which means from grades two through five, one classroom has a regular education teacher, a special education teacher, a full time intern and one third of the class has significant language-based learning issues. It is critical to provide small quiet working areas within these classrooms. To meet the educational needs of inclusion and integrated students, there must be an environment where it is quiet, has proper ventilation, and is inviting.



Overcrowding issues at Angier:

- Classroom sizes are too small.
- There are four toilet stalls for approximately 200 girls and four stalls and six urinals for approximately 200 boys.
- There are three adult bathrooms for over one hundred staff members.
- An eating area is in the basement corridor, there is no cafeteria.
- There are no areas to hold whole school assemblies.
- The Literacy Center serves as a library for guided reading books, as an instructional space for Early Literacy Intervention, as the inclusion facilitator's office, as the speech and language office, and as the literacy coordinator and literacy aides work area.
- Lack of meeting space for monthly IEP meetings for our seventeen inclusion students, transitional meetings, BEST meeting, and STEP meetings.
- During MCAS testing there is lack of space for the students who require specific learning modifications for testing. The library, office, psychologists' office, learning center, and literacy center are closed during testing to provide a quiet testing area. Services and specialists classes are not ongoing during MCAS.
- Storage units are in hallways due to small classroom sizes.

**Has the district had any recent teacher layoffs or reductions** NO

**If "YES", how many teaching positions were affected?** 0

**At which schools in the district?**

**Please describe the types of teacher positions that were eliminated(i.e art, math, science, physical education, etc.):**

**Has the district had any recent staff layoffs or reductions** NO

**If "YES", how many staff positions were affected?** 0

**At which schools in the district?**

**Please describe the types of staff positions that were eliminated(i.e guidance, administrative, maintenance, etc.):**

**Please provide a description of the program modifications as a consequence of these teacher and/or staff reductions,including the impact on district class sizes and curriculum.**

Does Not Apply

**Please provide a detailed description of your recent budget approval process including a description of any budget reductionsand the impact of those reductions on te District's school facilities, class sizes and educational program.**

Newton's FY11 approved School Committee Budget is \$167,203,992, including a \$2.5 million increase (+1.5%) above FY10. The process began in December 2009 with the approval by the School Committee of the Budget Guidelines for FY11 providing priorities such as focusing on effective teaching and increasing investment in academic initiatives and technology. The budget was created by the Superintendent and school administrators and was presented in March 2010. Notwithstanding the modest 1.5% increase over FY10, the FY11 budget contained no cuts to teachers at any grade level. Instead, the budget proposal included major cost saving initiatives such as the restructuring of the school lunch program as well as new sources of revenue via an elementary school early morning drop off program. Special Education initiatives included the expansion of the Integrated Classroom Model at the elementary and middle schools and the continuation of the alternative high school for Grades 9-12. These and other FY11 Special Education initiatives were funded by the Federal Stimulus funds. Rates for school building use were increased to offset custodial costs and the instrumental music fee was raised to further offset teacher salaries. With the closing of the FY10 books in summer, the district was able to carry forward over \$865,000 of FY10 Circuit Breaker funds to FY11 to be used for increased staffing needs, technology and other expenses.

## General Description

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**BRIEF BUILDING HISTORY: Please provide a detailed description of when the original building was built, and the date(s) and project scopes(s) of any additions and renovations (maximum of 5000 characters).:**

The Angier Elementary School is the oldest school building in Newton still in service as a neighborhood elementary school. The original building built in 1919 was 40,000 gsf. In 1936, an addition of approximately 10,569 gsf was built. This added two classrooms and two toilet rooms on each floor, plus two bicycle rooms in the basement, currently, the largest two classrooms in the school. Angier now contains 51,300 gsf and only 26,578 nsf, indicating that it is a very inefficient structure with a net-to-gross multiple of 1.93. Angier School has neither a cafeteria nor a multi-purpose room/auditorium. Students eat lunch at tables set up in a basement corridor. The original multi-purpose room with stage has been given over to the school library. All of the mechanical, electrical, and plumbing systems are original and not up to current codes, although the building has recently been converted to gas. The boiler is inefficient affecting the comfort level of teachers and children. Heat is uneven. Some rooms are too hot; others are too cold. Ventilation is below standard and missing in some spaces. The building is not accessible. There is a stair lift that does not give access to all levels. All of the systems in the building are past their useful life affecting comfort and security as well as teaching and learning. Angier School has a courtyard that often fills with water. This courtyard is the same level as the gymnasium. Over the last 15 years, the gym floor has needed to be replaced three times due to flooding. The school was converted to gas heat in 2008, and in 2009, a School Building Security Project was funded by a Homeland Security Grant that allowed for the installation of electronic access card readers on two doors at the building. All appropriate staff have electronic access by key fob device, and access records are monitored by a live database.

**TOTAL BUILDING SQUARE FOOTAGE: Please provide the original building square footage PLUS the square footage of any additions.:**

513000

**SITE DESCRIPTION: Please provide a detailed description of the current site and any known existing conditions that would impact a potential project at the site (maximum of 5000 characters).:**

Built in 1919, with an addition in 1936, Angier School is sited on 1.98 acres. The building is 3 floors and is approximately 51,300 gross square feet. Parking lot is made of bituminous concrete at the side of the building; there is also a small parking area in the rear. The lot is in fair condition with no accessible route from live parking to school. There is inadequate separation between parking and the paved play area. Sidewalks and ramps are concrete. The Entrance ramp is in poor condition and the sidewalk by the play area is in disrepair. Rear entrances are not accessible. Fields are turf with a skinned infield. Drainage is a problem in the field and there is no accessible route. There are two separate play structures. The K-2 (timber) structure is in fair/poor condition; the 3-5 (steel) is good. The surfacing around and the K-2 structure are not accessible. One bituminous basketball court is sited at the school and is in fair condition. Tennis and an additional basketball court are located at an adjacent park (not part of the 1.9 acres) and are in good condition. Benches and bike racks are located in the front of the school and by the play area. There is wire mesh and steel fencing at the rear and side perimeter. Building floodlights and exterior door lights are in fair condition, but there are no exterior lights in the parking area. There are restrictions of use on adjacent land, and it is not clear if we could build on the park space.

**BUILDING ENCLOSURE: Please provide a detailed description of the building enclosure, types of construction materials used, and any known problems or existing conditions (maximum of 5000 characters).:**

Exterior walls are the original load bearing masonry with concrete window and door surrounds, water table, and detailing, all in good condition. There are newer brick window headers at the rear and sides of the building. The roof is flat with metal roof edge and no active leaks. Windows are aluminum with thermal break and thermal glazing, fixed hopper and awning types, all in good condition. Doors are aluminum with pebble fiberglass panels in good condition, but door hardware is non-accessible. Exterior doors are non-accessible and entries are at stair landings providing limited access. One step landing at all other doors

is non-accessible. Because there is no visual front entry, this creates a security risk. There are no structural concerns.

**Has there been a Major Repair or Replacement of the EXTERIOR WALLS?: YES**

**Year of Last Major Repair or Replacement:** 1995

**Description of Last Major Repair or Replacement:**

Lintel replacement and associated masonry repairs

**Has there been a Major Repair or Replacement of the ROOF?: YES**

**Year of Last Major Repair or Replacement:** 2000

**Type Of ROOF** Cold applied

**Description of Last Major Repair or Replacement:**

Re-roof

**Has there been a Major Repair or Replacement of the WINDOWS?: NO**

**Year of Last Major Repair or Replacement:** 1982

**Type Of WINDOWS** Thermopane

**Description of Last Major Repair or Replacement:**

some replacement

**MECHANICAL and ELECTRICAL SYSTEMS: Please provide a detailed description of the current mechanical and electrical systems, and any known problems or existing conditions (maximum of 5000 characters):**

The HVAC system is poor and inefficient with a 75 year-old boilers. One boiler was repaired in 1985 (boiler #1) with a new burner and a new chamber. One boiler is to be bid for replacement in December 2008. The boilers are currently steam by oil; however, a conversion to natural gas is in process. There are univents and window air conditioning in offices. Mechanical ventilation is below standard or missing in some areas. Plumbing is poor and 89 years old. Student fixtures are not accessible, faculty fixtures are minimal. Fixtures are not water conserving. There is no fire protection system. Electrical service is 400A, 3 phase, 4 wire, 120/208V, in fair condition, approximately 30 years old. There are insufficient working clearances. There are circuit breaker panel boards with conduit and wire feeders, also in fair condition and 30 years old. The school has two indoor generators, the smaller serves lighting, the larger serves the building. Again, there are insufficient working clearances and the room is not 2-hour fire rated. The fire alarm system is multi-zone and ADA compliant with corridor smoke detectors and door holders; there is a master box. The mounting height and locations of some pull stations are out of code. All HVAC systems are past their normal useful life.

**Has there been a Major Repair or Replacement of the BOILERS?: YES**

**Year of Last Major Repair or Replacement:** 1985

**Description of Last Major Repair or Replacement:**

New burner in Boiler #1 and new chamber, 1 boiler for replacement 12/2008. It was funded with City FY08 funds and construction was complete in Spring 2010.

**Has there been a Major Repair or Replacement of the HVAC SYSTEM?: NO**

**Year of Last Major Repair or Replacement:** 1976

**Description of Last Major Repair or Replacement:**

Various room ventilation

**Has there been a Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM?: NO**

**Year of Last Major Repair or Replacement:** 1986

**Description of Last Major Repair or Replacement:**

Project 126 lighting levels

**BUILDING INTERIOR: Please provide a detailed description of the current building interior including a description of the flooring systems, finishes, ceilings, lighting, etc. (maximum of 5000 characters):**

Interior partitions are glazed brick, full height at upper corridors. There are painted plaster walls, typical and at basement corridor. Partitions are in fair condition with exposed conduit, panels, etc that detract from the functionality and aesthetics.

Floors are carpet and VCT. Carpet is in fair condition, VCT in good condition. Ceilings are 2x4 ACT and 2x2 ACT; in some areas the ceiling is the original plaster. The older ceilings have sagging and stained lines. Wood solid core doors have wood frames and wire glass lights, and are original and are in fair condition, but some swing open into original stairwells obstructing the path of travel. Hardware is also original and in fair condition. There are minimal built-in furnishings. The faculty room has a laminate counter and cabinets. Others are wood. There is minimal storage capacity throughout the building. There are no lockers, only wood cubbies in corridors creating a flammability risk. There are various window treatments throughout including vertical and horizontal blinds, and shades, most in fair condition. Light control is inconsistent. Toilet rooms are CMU, ceramic tile, VCT, plaster, and have metal and wood partitions and are insufficient in number and distribution. They are non-accessible. Stairs are concrete with steel nosing and metal handrails and guardrails. Railings are non-accessible. There is no elevator in the building. A stair lift is located at the main entry stair but impedes function of main circulation when in use. The stair lift does not provide access to the entire building. Signage is minimal and in poor condition. Signage is mostly made of paper and is not code-compliant. The gymnasium has a wood athletic floor and wood backstops. The gym is not accessible. There is no cafeteria. Students eat in the basement corridor which has a VCT floor and painted plaster walls. The kitchen is functional for warming only.

The telephone system is new, but there are no phone lines into classrooms. The lighting system is mostly 2x4 recessed fluorescent. There are no occupancy sensors or multiple switches in offices with natural light. There are many broken and discolored lenses. Some rooms need additional fixtures. Receptacles are generally standard duplex type but more are needed throughout the facility. The security system consists of a control panel in the teacher's room closet, keypads at specific doors, motion detectors in corridors and stairs. The system notifies UL Central Station. There is no independent sound system in the school. Dial phones and speakers are in classrooms, and ceiling speakers are in corridors. The clock/bell system is in good shape. Classrooms and offices use battery operated clocks. There is data in classrooms and office areas with a minimal wireless system. Additional data outlets are needed in classrooms. There is no cable service provided. There is no air conditioning. The gymnasium has a newly replaced athletic floor.

**PROGRAMS and OPERATIONS: Please provide a detailed description of the current programs offered and indicate whether there are program components that cannot be offered due to facility constraints, operational constraints, etc.:**

Programs offered:

- classrooms for each grade
- rooms for special education services, occupational therapy, speech, English as a second language, psychologist, (used to be social worker).
- rooms for specialists, nurse, offices

Programs that may not be offered due to facility restraints:

- after care
- Newton Community education programs
- break out rooms for special education students who need small space
- room for students with behavioral issues
- tutorials
- rooms for other specialists i.e. ABA therapists
- room for parents to gather
- cafeteria
- auditorium
- multi-purpose space
- rooms for instrumental music

**CORE EDUCATIONAL SPACES: Please provide a detailed description of the Core Educational Spaces within the facility, a description the number and sizes (in square feet) of classrooms, a description of science rooms/labs including ages and most recent updates, and a description of the media center/library (maximum of 5000 characters):**

Angier has 18 instruction classrooms in regular classroom spaces; the average size is 696 nsf:

1@ 572 nsf

4@ 638 nsf

4@635 nsf

3@682 nsf

4@700 nsf

2@ 1007 nsf (basement rooms with minimal windows and columns in center of spaces)

The library is in a converted auditorium space and is approximately 2,021 nsf; it contains 14, 415 titles with 15,059 copies. This space is shared by the computer lab, parent/staff/student meetings. Performance space is on the small 160 nsf stage in the library.

The following spaces are located in a substandard basement that provides minimal daylight and natural ventilation.

Art room – 704 nsf

Music room – 726 nsf plus 286 nsf shared with custodial office

Gymnasium – 3,337 nsf

After school program – 500 nsf space

Kitchen facilities – 484 nsf, shared w/ SPED breakout space

Teachers' room & dining area – 484 nsf

Angier School has neither a cafeteria nor a multi-purpose room/auditorium. Due to Newton Fire Department regulations limiting occupancy in the gymnasium, it is not possible for the entire school to gather in one space at any time. There are inadequate 100 nsf rooms for OT/PT, and the speech and language program. Learning center, inclusion and literacy programs share two 638 nsf rooms, one of which also houses the book room. The administration area is 680 nsf and the nurse's room is 399 nsf.

**CAPACITY and UTILIZATION: Please provide a detailed description of the current capacity and utilization of the school facility. If the school is overcrowded, please describe steps taken by the administration to address capacity issues. Please also describe in detail any spaces that have been converted from their intended use to be used as classroom space (maximum of 5000 characters):**

Angier is over capacity based on its current enrollment of 375 students and its current programs and spaces. When using the standard 40 square feet per pupil classroom size, Angier School should have a maximum of 349 students, and this does not take into account the deficient spaces and nonexistent programs. When factoring in future enrollment projections showing an additional four students and that Angier currently does not have the educational spaces required to meet Newton standards nor MSBA guidelines, Angier is greatly over capacity. Angier School is 51,300 gross square feet and even though every conceivable space is used for educational purposes it has a very low 68 net square feet per pupil average, which is significantly lower than the MSBA space guidelines of 113 NSF per pupil; this is due in part to the very high net-to-gross area ratio (1.93) of this building, which was constructed in 1919. Angier School is 100% utilized.

Ninety percent of the classrooms are greatly under the MSBA guidelines for elementary schools and are the smallest in size in the Newton school system averaging 600 square feet. Angier does not have a cafeteria, auditorium or multi-purpose space. The art, music, special education and specialist spaces are all undersized when compared to MSBA guidelines. The educational programs do not occur in proper educational spaces and this is due to the physical constraints of the school building.

Many spaces have been either converted into educational spaces, or partitioned into two spaces to accommodate different educational programs, or located in entirely inappropriate spaces to provide the programs required. Angier is a three-story building with foodservice received and prepared at the lowest level, without a cafeteria the school had been serving lunches in the classrooms and without an elevator, had been carrying the food up stairs to the upper levels—an unsafe and unsanitary situation. With ingenuity, the Angier administration has arranged a basement corridor into a “cafeteria” space.

The undersized art and music classrooms are located in the basement level along with two inaccessible general classrooms that have high, basement windows for natural light and structural columns in the middle of the teaching spaces. Three storage closets without mechanical or fresh air have been converted to specialist spaces for OT, speech and special education; these spaces do not meet state building code requirements for occupied spaces.



Capacity issues have been addressed at Angier by having overcrowded classrooms and by using every conceivable space in the building (basement, storage rooms, and corridors included) to meet the educational needs of the students. Angier does not have modular classrooms due to the tight site constraints; there is an emergency access drive around the school building, which then abuts parkland, the MBTA railway tracks and a church property.

**MAINTENANCE and CAPITAL REPAIR: Please provide a detailed description of the district's current maintenance practices, its capital repair program, and the maintenance program in place at the facility that is the subject of this SOI. Please include specific examples of capital repair projects undertaken in the past, including if any override or debt exclusion votes were necessary (maximum of 5000 characters).:**

- Regular maintenance and preventative maintenance (PM) programs are funded annually by City Charter funding requirement of up to 2% of the prior fiscal year school budget (2,264,100 in FY11) and City capital funds from bonding/free cash of \$1,750,000.
- PM and regular maintenance work orders are processed in a web-based electronic system enabling efficiency and data gathering. Custodians receive annual training on PM procedures. PM program includes:  
 Asbestos inspection every 3 years  
 Boiler cleaning annually  
 Elevator inspection  
 Emergency generator inspections monthly  
 Fire suppression testing annually  
 Replacing carpet with vinyl tile  
 HVAC maintenance including duct cleaning  
 Infrared roof inspection  
 Steam trap replacement  
 Unit vent filter changes 3x/year
- The Summer Projects program tailors repairs and improvements to each building, including items as painting, flooring, bathroom upgrades and space re-organization to meet enrollment/programmatic demands.
- Capital funds pay for larger repairs from a plan formulated jointly with the Public Buildings Department and include:  
 Accessibility improvements  
 Communication system upgrades  
 Masonry repairs/waterproofing  
 Generators  
 HVAC system, including replacement of boilers, roof top units, univents  
 Energy efficient lighting installation  
 Roof/gutter replacements  
 Window/door replacements

**Priority 2**

***Please describe the existing conditions that constitute severe overcrowding.***

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Angier is overcrowded based on its current enrollment of 375 students and its current programs and spaces. When using the standard 40 square feet per pupil classroom size, Angier School should have a maximum of 349 students, and this does not take into account the deficient spaces and nonexistent programs. When factoring in future enrollment projections showing an additional four students and that Angier currently does not have the educational spaces required to meet Newton standards nor MSBA guidelines, Angier is greatly overcrowded.

Angier School is 51,300 gross square feet and has a very low 68 net square feet per pupil average, which is significantly lower than the MSBA space guidelines of 113 NSF per pupil; this is due in part to the very high net-to-gross area ratio (1.93) of this building, which was constructed in 1919.

**Priority 2**

*Please describe the measures the School District has taken to mitigate the problem(s) described above.*

Newton has completed a Long-Range Facilities Master Planning process to address overcrowding on a district wide basis. While the K-5 enrollment is projected to decrease overall, on a school by school basis there is overcrowding due to inadequate facility sizes and inappropriate educational spaces (such as corridors and basements). Possible solutions include: redistricting, additions to increase capacity and replacement of older buildings with larger facilities. In Angier every conceivable space is used for educational purposes. Ninety percent of the classrooms are greatly under the MSBA guidelines for elementary schools and are the smallest in size in the Newton school system averaging 600 square feet. Many spaces have been either converted into educational spaces, or partitioned into two spaces to accommodate different educational programs, or located in entirely inappropriate spaces to provide the programs required. Angier is a three-story building with foodservice received and prepared at the lowest level, without a cafeteria the school had been serving lunches in the classrooms and without an elevator, had been carrying the food up stairs to the upper levels—an unsafe and unsanitary situation. With ingenuity, the Angier administration has arranged a basement corridor into an eating area.

The undersized art and music classrooms are located in the basement level along with two inaccessible general classrooms that have high, basement windows for natural light and structural columns in the middle of the teaching spaces. Three storage closets without mechanical or fresh air have been converted to specialist spaces for OT, speech and special education; these spaces do not meet state building code requirements for occupied spaces. The undersized art and music classrooms are located in the basement level along with two inaccessible general classrooms that have high, basement windows for natural light and structural columns in the middle of the teaching spaces. Three storage closets without mechanical or fresh air have been converted to specialist spaces for OT, speech and special education; these spaces do not meet state building code requirements for occupied spaces.

Capacity issues have been addressed at Angier by having overcrowded classrooms and by using every conceivable space in the building (basement, storage rooms, and corridors included) to meet the educational needs of the students. Angier does not have modular classrooms due to the tight site constraints; there is an emergency access drive around the school building, which then abuts parkland, the MBTA railway tracks and a church property.



**Priority 2**

***Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.***

Most of Newton's submitted schools are over 50 year old. Four are over 80. Angier will be 91 years old in 2010. The buildings are crowded for two reasons: elementary enrollment has increased over the last five years and the bulge is now hitting the middle schools. Newton has 21 modular classrooms in place to deal with the increases at both elementary and middle school level, 4 added last year. The second reason is that the buildings were built in a different era for a different educational program. Over the years classrooms and other spaces were converted to accommodate current needs. When built Newton schools did not have SPED and ELL programs in neighborhood schools, children went home for lunch, kindergarten was a ½ day double session, no after school programs existed, nor was there dedicated space for art and music instruction. Newton runs an inclusive SPED program in its elementary and middle schools. SPED programs require self-contained classrooms and ancillary spaces for speech and language, OT and PT, ABA space (for autism spectrum disorders) and small group tutorial spaces. Teachers and specialists have become creative in finding spaces to teach. Many of these spaces are tables in hallways, small closets and former storage spaces with inadequate ventilation. The original auditorium at Angier is now the library. The windowless former auditorium wing spaces are used as SPED offices and tutorial spaces. Two classrooms are on the basement level with poor daylighting. Even without major enrollment increases, the building does not support its current enrollment. The impact on teachers and student learning is real. Students with learning issues and their teachers do not have private, quiet, well ventilated spaces in which to teach and learn without distraction. Angier has some of the smallest classrooms in the city. Of the 18 classrooms 14 are 700 sq. feet and under. The crowded classrooms are noisy and put pressure on both children and teachers. There are no sinks in classrooms. Because of the small classrooms and closets converted to tutorial spaces, educational materials are stored in hallways. There is no multi-purpose room at Angier for whole school assemblies nor a cafeteria. There is a small space for warming food but not a full kitchen. A basement hallway has cafeteria tables. Most children eat lunch in their classrooms. All of the mechanical, electrical, and plumbing systems are original and not up to current codes. The boiler is inefficient affecting the comfort level of teachers and children. Heat is uneven. Some rooms are too hot; others are too cold. Ventilation is below standard and missing in some spaces. The building is not accessible. There is a stair lift which does not give access to all levels. Classrooms do not have the ability to adequately support the technology that is part of 21st century education. There is a minimal wireless system and no cable service. There are too few receptacles in classrooms. The phone system is new but there are no phone lines in classrooms. There is no independent sound system in the building. All of the systems in the building are past their useful life affecting comfort and security as well as teaching and learning.

**Please also provide the following:**

**Cafeteria Seating Capacity:** 1

**Number of lunch seatings per day:** 1

**Are modular units currently present on-site and being used for classroom space?:** NO

**If "YES", indicate the number of years that the modular units have been in use:**

**Number of Modular Units:**

**Classroom count in Modular Units:**

**Seating Capacity of Modular classrooms:**

**What was the original anticipated useful life in years of the modular units when they were installed?:**

**Have non-traditional classroom spaces been converted to be used for classroom space?:** NO

**If "YES", indicate the number of non-traditional classroom spaces in use:**

**Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used:**

Please note: There is no cafeteria and no seatings (see above). There is an eating area set up in the basement corridor.

**Please explain any recent changes to the district's educational program, school assignment policies, grade**

**configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters):**

The Newton Public Schools instituted a full neighborhood inclusion program over 10 years ago and all school facilities have been adapted to meet the needs of all students. For example, regular classroom space has been used for SPED programs; office space for support services such as speech/language, OT, PT, ABA, social workers, psychologists, and inclusion facilitators has been created out of existing space, in many instances these spaces are in former closets, storage rooms, rooms without proper lighting or privacy. Lifts have been installed where needed. The addition of programs and staff that address the needs of these learners has had a tremendous impact on school facilities and space availability. In addition to the neighborhood inclusion needs, several of Newton's elementary schools also house citywide SPED programs that require the use of classroom space as well, thus putting further pressure on already strained space needs.

School assignment has changed recently. Because of crowding in the elementary schools the new Avalon apartment building development on Route 9 was redistricted from Bowen to Memorial Spaulding. In addition, some optional districts where parents had the choice of two schools, were removed, and now the school department reserves the right to assign new families in optional districts to the least crowded school.

The Ed Center administrative space houses 4 SPED pre-schools because they no longer fit into the elementary school buildings. A privately run pre-school program of long standing was asked to leave the Franklin and Lincoln Eliot Schools and the space was reclaimed for use by the school.

The SC has a class size guideline (elementary: K-1, 20 or below, 2-5, 24 and below; middle school team size of 90 or below) that is not in enforceable across the board because of lack of classroom space and money.

Until recently, elementary schools without auditoriums or other multi-use spaces used gymnasiums for large school gatherings until it was determined that this violated code. They now have no large space for the entire school to gather.

Newton is an urban suburb whose demographics have changed over the years. Many students' first language is not English. These ELL students are supported in small group settings and tutorials, thus the need for smaller classrooms and spaces where they can receive English instruction. Title 1 schools, a homeless shelter and low rent housing are all present in Newton and the city's population is far more diverse than that of the neighboring communities to which Newton is most often compared.

**What are the district's current class size policies?:**

Elementary

K-1, 20 or below

2-5, 24 and below

**Has the district closed, taken off-line, or converted to another, non-school use, any school facilities within the last 10 years?:** NO

**If "YES", please provide the name and address of any such school facility and provide a description of the reasons for removing the school from service.:**

**Priority 5**

***Please provide a detailed description of the issues surrounding the school facility systems (e.g., roof, windows, boilers, HVAC system, and/or electrical service and distribution system) that you are indicating require repair or replacement. Please describe all deficiencies to all systems in sufficient detail to explain the problem.***

Constructed in 1919 with a 1936 addition, the mechanical system is original to the building and past its normal useful life. The mechanical ventilation is below standard or non-existent in most areas. The boiler is energy inefficient. Plumbing fixtures are original and are not water conserving. There are no digital controls for the systems and no occupancy sensors for the lighting. Recognizing that all of our older buildings are energy inefficient, the City of Newton has entered into a contract with Noresco, an energy services company (ESCO). Noresco has performed a comprehensive investment grade energy audit at this facility, and has reviewed the historic consumption of all utilities while calculating the available energy costs savings that will result from recommended energy conservation projects that will deliver those savings. The City is in the process of reviewing the recommendations and projects, they will be funded by bonding. Noresco will guarantee the savings and manage the construction needed to institute the projects.

**Priority 5**

***Please describe the measures the School District has already taken to mitigate the problem/issues described in Question 1 above.***

Newton has recently completed a Long-Range Facilities Master Plan process encompassing all its elementary and middle school buildings. Based on current best practices and Newton's educational mission, educational and building standards that address the reduction of energy consumption have been established as part of the master plan. In recent years, energy efficient lighting has been installed throughout the system by partnering with the NStar Lighting Rebate Program. The City's Public Buildings Department has hired an HVAC specialist who has initiated a preventative maintenance program for the district's heating equipment. This oversight has had a direct impact on reduced energy consumption and energy expenditures. In the last three years, the district has begun using capital funding for major school-wide window and door replacements with energy efficient ones. In addition, the School Department has clear policies and procedures for reducing energy use throughout the day and evening. Heat is not turned on within school buildings until October 15. During the school day thermostats are kept at the lowest possible temperatures and staff and students are reminded to dress warmly and rearrange classroom furnishing to maximize distribution of heat. Similarly, custodians lower thermostats accordingly during the night and on weekends. Policies are in place to shut off lights and use natural lighting whenever possible. The Superintendent periodically sends out reminders regarding these energy conservation policies. There is an staff environmental team in each school that is responsible for encouraging environmental and energy awareness.

**Priority 5**

***Please provide a detailed explanation of the impact of the problem/issues described in Question 1 above on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.***

Most of Newton's submitted schools are over 50 year old. Four are over 80. Angier will be 91 years old in 2010. The buildings are crowded for two reasons: elementary enrollment has increased over the last five years and the bulge is now hitting the middle schools. Newton has 21 modular classrooms in place to deal with the increases at the elementary and middle school levels, 4 added last year. The second reason is that the buildings were built in a different era for a different educational program. Over the years classrooms and other spaces were converted to accommodate current needs. When built Newton schools did not have SPED and ELL programs in neighborhood schools, children went home for lunch, kindergarten was a ½ day double session, no after school programs existed, nor was there dedicated space for art and music instruction. Newton runs an inclusive SPED program in its elementary and middle schools. SPED programs require self-contained classrooms and ancillary spaces for speech and language, OT and PT, ABA space (for autism spectrum disorders) and small group tutorial spaces. Teachers and specialists have become creative in finding spaces to teach. Many of these spaces are tables in hallways, small closets and former storage spaces with inadequate ventilation. The original auditorium at Angier is now the library. The windowless former auditorium wing spaces are used as SPED offices and tutorial spaces. Two classrooms are on the basement level with poor daylighting. Even without major enrollment increases, the building does not support its current enrollment. The impact on teachers and student learning is real. Students with learning issues and their teachers do not have private, quiet, well ventilated spaces in which to teach and learn without distraction. Angier has some of the smallest classrooms in the city. Of the 18 classrooms 14 are 700 sq. feet and under. The crowded classrooms are noisy and put pressure on both children and teachers. There are no sinks in classrooms. Because of the small classrooms and closets converted to tutorial spaces, educational materials are stored in hallways. There is no multi-purpose room at Angier for whole school assemblies nor a cafeteria. There is a small space for warming food but not a full kitchen. A basement hallway has cafeteria tables. Most children eat lunch in their classrooms.

All of the mechanical, electrical, and plumbing systems are original and not up to current codes. The boiler is inefficient affecting the comfort level of teachers and children. Heat is uneven. Some rooms are too hot; others are too cold. Ventilation is below standard and missing in some spaces. The building is not accessible. There is a stair lift which does not give access to all levels. Classrooms do not have the ability to adequately support the technology that is part of 21<sup>st</sup> century education. There is a minimal wireless system and no cable service. There are too few receptacles in classrooms. The phone system is new but there are no phone lines in classrooms. There is no independent sound system in the building. All of the systems in the building are past their useful life affecting comfort and security as well as teaching and learning.

**Please also provide the following:**

**Have the systems identified above been examined by an engineer or other trained building professionals?:** NO  
**If "YES", please provide the name of the individual and his/her professional affiliation:**  
**Please also provide the date of the inspection::**

**Priority 7**

***Please provide a detailed description of the programs not currently available due to facility constraints, the state or local requirement for such programs and the facility limitations precluding the programs from being offered.***

The ANGIER elementary school is the oldest school building in Newton still in service as a neighborhood elementary school. It was constructed in 1919 and last renovated in 1936. This indicates that it has never received a single dollar of state aid under the School Building Assistance Act of 1948. Angier contains 51,300 gsf and only 26,578 nsf, indicating that it is a very inefficient structure with a net-to-gross multiple of 1.93. Angier has 70 nsf per pupil. The total net area is due to its two largest classrooms, its art room, its after school facilities, its music room, its gymnasium, its teachers dining room and its minimal kitchen facilities, all of which are located in substandard facilities on the Basement level that provide minimal daylight and natural ventilation. Angier has 18 regular classroom spaces, all but 2 of which are smaller than 800 nsf: there are 2 CR @ 575 nsf, 5 @ 638 nsf, 2 @ 660 nsf, 3 @ 682 nsf, 2 @ 700 nsf and 2 @ 752 nsf. The average classroom size is 701 nsf. The two largest classrooms (@ 1,007 nsf) are located in the basement. The total net area devoted to regular classrooms is 12,624 nsf. The Angier School has neither a cafeteria nor a multi-purpose room/auditorium. Students eat lunch at tables set up in a basement corridor. The original multi-purpose room with stage has been given over to the school library. The music room is shared with the custodial staff and the art room contains only 704 nsf. The after-school program is held in minimal facilities of less than 500 nsf. There are tiny 100 nsf rooms for the OT/PT program and the speech and language program. In sum, the Angier School has served Newton well for 88 years and should be retired from service as soon as is practicable.

**Priority 7**

***Please describe the measures the School District has taken or is planning to take in the immediate future to mitigate the problem(s) described above.***

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The City of Newton has just completed a Long-Range Facilities Master Plan of its 15 elementary schools and 4 middle schools. A clear intent is to use the Master Plan as a blueprint for mitigating the educational inadequacies of the existing elementary and middle school physical plant. In the meantime, the City continues to locate additional modular classrooms at those schools experiencing the most severe overcrowding and, where unavoidable, to take over space from special programs to convert to regular classroom use. While this provides some short-term relief, it only points to the need for a comprehensive approach to the City's elementary and middle school educational needs for the next 25 years.

**Priority 7**

***Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.***

Most of Newton's submitted schools are over 50 year old. Four are over 80. Angier will be 91 years old in 2010. The buildings are crowded for two reasons: elementary enrollment has increased over the last five years and the bulge is now hitting the middle schools. Newton has 21 modular classrooms in place to deal with the increases, 4 added last year. The second reason is that the buildings were built in a different era for a different educational program. Over the years classrooms and other spaces were converted to accommodate current needs. When built Newton schools did not have SPED and ELL programs in neighborhood schools, children went home for lunch, kindergarten was a ½ day double session, no after school programs existed, nor was there dedicated space for art and music instruction. Newton runs an inclusive SPED program in its elementary and middle schools. SPED programs require self-contained classrooms and ancillary spaces for speech and language, OT and PT, ABA space (for autism spectrum disorders) and small group tutorial spaces. Teachers and specialists have become creative in finding spaces to teach. Many of these spaces are tables in hallways, small closets and former storage spaces with inadequate ventilation. The original auditorium at Angier is now the library. The windowless former auditorium wing spaces are used as SPED offices and tutorial spaces. Two classrooms are on the basement level with poor daylighting. Even without major enrollment increases, the building does not support its current enrollment. The impact on teachers and student learning is real. Students with learning issues and their teachers do not have private, quiet, well ventilated spaces in which to teach and learn without distraction. Angier has some of the smallest classrooms in the city. Of the 18 classrooms 14 are 700 sq. feet and under. The crowded classrooms are noisy and put pressure on both children and teachers. There are no sinks in classrooms. Because of the small classrooms and closets converted to tutorial spaces, educational materials are stored in hallways. There is no multi-purpose room at Angier for whole school assemblies nor a cafeteria. There is a small space for warming food but not a full kitchen. A basement hallway has cafeteria tables. Most children eat lunch in their classrooms.

All of the mechanical, electrical, and plumbing systems are original and not up to current codes. The boiler is inefficient affecting the comfort level of teachers and children. Heat is uneven. Some rooms are too hot; others are too cold. Ventilation is below standard and missing in some spaces. The building is not accessible. There is a stair lift which does not give access to all levels. Classrooms do not have the ability to adequately support the technology that is part of 21<sup>st</sup> century education. There is a minimal wireless system and no cable service. There are too few receptacles in classrooms. The phone system is new but there are no phone lines in classrooms. There is no independent sound system in the building. All of the systems in the building are past their useful life affecting comfort and security as well as teaching and learning.



## Vote

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Vote of Municipal Governing Body   YES: 23   NO: 0   Date: 1/18/2011

Vote of School Committee   YES: 9   NO: 0   Date: 1/10/2011

Vote of Regional School Committee   YES:   NO:   Date:

## Form of Vote

The following form of vote should be used by both the City Council/Board of Aldermen, Board of Selectmen/equivalent governing body AND the School Committee in voting to approve this Statement of Interest.

If a regional school district, the regional school district should use the following form of vote.

Resolved: Having convened in an open meeting on \_\_\_\_\_, the  
\_\_\_\_\_  
*[City Council/Board of Aldermen,  
Board of Selectmen/Equivalent Governing Body, School Committee]* of \_\_\_\_\_  
*[City/Town/School District]*,  
in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to  
submit to the Massachusetts School Building Authority the Statement of Interest dated \_\_\_\_\_  
for the \_\_\_\_\_  
*[Name of School]* located at  
\_\_\_\_\_  
*[Address]* which  
describes and explains the following deficiencies and the priority category(s) for which  
\_\_\_\_\_  
*[Name of City/Town/District]* may be invited to apply to the  
Massachusetts School Building Authority in the future

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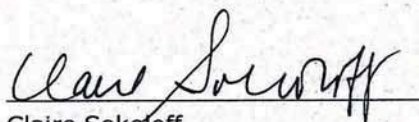
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\_\_\_\_\_  
*[Insert a description of the priority(s) checked off on  
the Statement of Interest and a brief description of the deficiency described therein for each priority];* and hereby further specifically

acknowledges that by submitting this Statement of Interest, the Massachusetts School Building Authority  
in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any  
other funding commitment from the Massachusetts School Building Authority, or commits the  
\_\_\_\_\_  
*[Name of City/Town/District]* to filing an application for funding with the  
Massachusetts School Building Authority.

**Form of Vote**

Resolved: Having convened in an open meeting on January 10, 2011, the School Committee of Newton, MA in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest dated January 26, 2011 for the Angier Elementary School located at 1697 Beacon Street Waban, MA 02468 which describes and explains the following deficiencies and the priority category(s) for which Newton, MA may be invited to apply to the Massachusetts School Building Authority in the future: elimination of existing severe overcrowding and replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating, and ventilation systems, to increase energy conservation and decrease energy related costs to a school facility; and hereby further specifically acknowledges that by submitting this Statement of Interest, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the City/Town/Regional School District to filing an application for funding with the Massachusetts School Building Authority.



Claire Sokoloff  
Chair, Newton School Committee

## Closed Schools

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**Question 1:** Has the District sold, closed, or otherwise removed from service a school in the last 10 years?

**NO**

**Question 2:** Does the District have any plans to sell, close, or otherwise remove from service a school in the next 10 years?

**NO**



**CERTIFICATIONS**

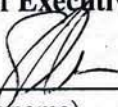
The undersigned hereby certifies that, to the best of his/her knowledge, information and belief, the statements and information contained in this statement of Interest and attached hereto are true and accurate and that this Statement of Interest has been prepared under the direction of the district school committee and the undersigned is duly authorized to submit this Statement of Interest to the Massachusetts School Building Authority. The undersigned also hereby acknowledges and agrees to provide the Massachusetts School Building Authority, upon request by the Authority, any additional information relating to this Statement of Interest that may be required by the Authority.

**LOCAL CHIEF EXECUTIVE OFFICER/DISTRICT SUPERINTENDENT/SCHOOL COMMITTEE CHAIR  
(E.g., Mayor, Town Manager, Board of Selectmen)**

Chief Executive Officer

School Committee Chair

Superintendent of Schools

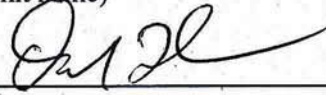
  
 (print name)

 Claire Sokoloff  
 (print name)

 David Fleishman  
 (print name)

 Seth Warren  
 (signature)

 Claire Sokoloff  
 (signature)

  
 (signature)

Date 1/24/11

Date 1/24/11

Date 1/24/11



CITY OF NEWTON

IN BOARD OF ALDERMEN

January 18, 2010

RESOLUTION TO THE NEWTON SUPERINTENDENT OF SCHOOLS  
AUTHORIZING THE SUPERINTENDENT TO SUBMIT A STATEMENT OF  
INTEREST FOR 2011 TO THE MASSACHUSETTS SCHOOL BUILDING  
AUTHORITY BY JANUARY 26, 2011 DESIGNATING ANGIER ELEMENTARY  
SCHOOL AS THE TOP PRIORITY SCHOOL FOR THE CITY OF NEWTON.

BE IT RESOLVED: that the Board of Aldermen of Newton, MA having convened in an open meeting on January 18, 2011, in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest dated January 26, 2011 for the Angier Elementary School located at 1697 Beacon Street Waban, MA 02468 which describes and explains the following deficiencies and the priority category(s) for which Newton, MA may be invited to apply to the Massachusetts School Building Authority in the future elimination of existing severe overcrowding and replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating, and ventilation systems, to increase energy conservation and decrease energy related costs to a school facility: and hereby further specifically acknowledges that by submitting this Statement of Interest, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the City/Town/Regional School District to filing an application for funding with the Massachusetts School Building Authority.

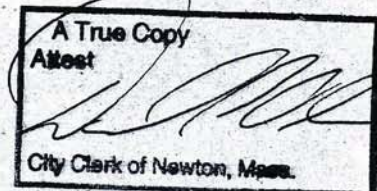
Under Suspension of Rules

Readings Waived and Resolution Approved

23 yeas 0 nays 1 absent (Alderman Salvucci)



(SGD) DAVID A. OLSON, City Clerk



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## **PART 7: APPENDIX**

- MSBA Feasibility Study Invitation







# Massachusetts School Building Authority

Steven Grossman  
*Chairman, State Treasurer*

John K. McCarthy  
*Interim Executive Director*

January 25, 2012

The Honorable Setti D. Warren, Mayor  
City of Newton  
Newton City Hall  
1000 Commonwealth Avenue  
Newton, MA 02459

Re: Newton Public Schools, A.E. Angier Elementary School

Dear Mayor Warren:

I am pleased to report that the Massachusetts School Building Authority (“the MSBA”) Board of Directors voted to invite the Statement of Interest for the A.E. Angier Elementary School in the City of Newton (the “District”) into the MSBA’s Eligibility Period. The new, 270-day Eligibility Period formalizes and streamlines the beginning of the MSBA’s grant approval process and benefits the District by providing a definitive schedule for the completion of preliminary requirements, assisting with the determination of financial and community readiness, and identifying needs for planning and budgeting. Successful completion of all activities in the Eligibility Period will allow the District to be eligible for an MSBA invitation to Feasibility Study.

Invitation into the Eligibility Period is *not* an invitation to Feasibility Study. Moving forward in the MSBA’s process requires collaboration with the MSBA, and an invitation to Feasibility Study will require a further vote of the MSBA Board of Directors. Communities that “get ahead” of the MSBA without MSBA approval will not be eligible for grant funding. To qualify for any funding from the MSBA, local communities must follow the MSBA’s statute and regulations, which require MSBA collaboration and approval at each step of the process.

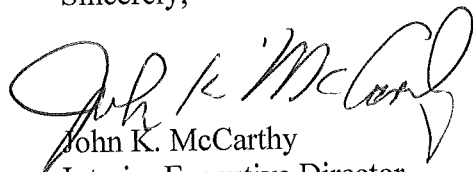
The District’s Eligibility Period will commence on February 9, 2012 and conclude on November 5, 2012. During this time, the District must complete the preliminary requirements in accordance with the schedule on Attachment A. The ability of the District to complete the preliminary requirements within the 270-day period does not guarantee an invitation into the MSBA Capital Pipeline. However, if the District cannot complete the preliminary requirements within the 270-day Eligibility Period, the MSBA will require the District to withdraw its SOI, and the District will have to re-file an SOI during the next open SOI filing period and/or when the District has the financial and community support required.

Page 2  
January 25, 2012  
Newton Letter

If the District has any concerns about meeting any of the deadlines set forth in Attachment A, please notify the MSBA in writing by February 9, 2012. If you have questions or would like additional information regarding the Eligibility Period, please refer to our website <http://www.massschoolbuildings.org/building/prerequisites> and/or contact Kathryn DeCristofaro (Katie.DeCristofaro@massschoolbuildings.org).

I look forward to continuing to work with you throughout the MSBA's grant program process. As always, feel free to contact me or my staff at (617) 720-4466 should you have any questions.

Sincerely,



John K. McCarthy  
Interim Executive Director

Cc: Senator Cynthia Stone Creem  
Representative Ruth Balser  
Representative Kay Khan  
Representative John Lawn  
Scott F. Lennon, President, Newton Board of Alderman  
Claire Sokoloff, Chair, Newton School Committee  
Dr. David A. Fleishman, Superintendent, Newton Public Schools  
File: Letters 10.2 (Region 4)



# Massachusetts School Building Authority

Steven Grossman  
*Chairman, State Treasurer*

John K. McCarthy  
*Executive Director*

April 9, 2012

The Honorable Setti D. Warren, Mayor  
City of Newton  
Newton City Hall  
1000 Commonwealth Avenue  
Newton, MA 02459

Re: Newton Public Schools, A.E. Angier Elementary School

Dear Mayor Warren:

I am pleased to report that the Board of the Massachusetts School Building Authority (“MSBA”) voted to approve the City of Newton (“the City”) to collaborate with the MSBA in conducting a Feasibility Study for the A.E. Angier Elementary School. The Board’s vote follows the City’s timely completion of all of the requirements of the MSBA’s Eligibility Period.

I do want to emphasize that this invitation to collaborate on a Feasibility Study is *not* approval of a project, but is strictly an invitation to the District to work with the MSBA to explore potential solutions to the problems that have been identified. Moving forward in the MSBA’s process requires collaboration with the MSBA, and communities that “get ahead” of the MSBA without MSBA approval will not be eligible for grant funding. To qualify for any funding from the MSBA, local communities must follow the MSBA’s statute and regulations, which require MSBA collaboration and approval at each step of the process.

During the Feasibility Study phase, the City and the MSBA will collaborate pursuant to the terms of the Feasibility Study Agreement dated March 29, 2012 to find the most fiscally responsible and educationally appropriate solution to the problems identified at the A.E. Angier Elementary School. The Feasibility Study, which will be conducted pursuant to the MSBA’s regulations, requires the City to work with the MSBA on the procurement of an Owner’s Project Manager and design professional, which will help bring the City’s feasibility study to fruition.

We will be contacting you soon to discuss these next steps in more detail. In the meantime, however, I wanted to share with you the Board’s decision and provide a brief overview of what this means for the City of Newton.

Page 2  
April 6, 2012  
Newton Board Action Letter

I look forward to continuing to work with you as part of the MSBA's grant program. As always, feel free to contact me or my staff at (617) 720-4466 should you have any questions.

Sincerely,



John K. McCarthy  
Executive Director

Cc. Senator Cynthia Stone Creem  
Representative Ruth Balser  
Representative Kay Khan  
Representative John Lawn  
Scott F. Lennon, President, Newton Board of Alderman  
Claire Sokoloff, Chair, Newton School Committee  
Dr. David A. Fleishman, Superintendent, Newton Public Schools  
Sandy Guryan, Deputy Superintendent, Newton Public Schools  
Alex Volcarce, Project Manager, City of Newton  
File: Letters 10.2 (Region 4)

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## **PART 7: APPENDIX**

- Enrollment Certification







# Massachusetts School Building Authority

Steven Grossman  
*Chairman, State Treasurer*

John K. McCarthy  
*Executive Director*

March 12, 2012

The Honorable Setti D. Warren, Mayor  
City of Newton  
Newton City Hall  
333 Washington Street  
Brookline, MA 02146

Re: Newton Public Schools, Angier Elementary School

Dear Mayor Warren:

I would like to thank your team for meeting with the Massachusetts Building Authority (“MSBA”) staff on March 7, 2012 regarding enrollment projections and methodologies. As discussed at that meeting, the next critical step is for the MSBA and the District to agree on the design enrollment for the proposed project at the Angier Elementary School.

The Angier Elementary School serves grades K-5 and accordingly, this enrollment analysis will be focused on the enrollment projections for those grades. Included below is a table that charts Newton’s district-wide enrollment over the last 10 years. The table indicates that over the last five years Newton’s K-5 enrollments have steadily increased from approximately 5,410 to approximately 5,680 students. During this same period, the middle school grades have experienced an inclining enrollment trend and high school grades have experienced a declining enrollment trend as the smaller class sizes from the previous decade progress through the system. District-wide total enrollment for the 2011-2012 school year showed an increase of 628 students over the 2002-2003 school year.

Year	K-5	6-8	9-12
2002	4,970	2,677	3,584
2003	4,938	2,665	3,624
2004	4,975	2,612	3,629
2005	5,132	2,526	3,703
2006	5,314	2,463	3,673
2007	5,408	2,444	3,651
2008	5,490	2,467	3,553
2009	5,526	2,546	3,472
2010	5,648	2,543	3,532
2011	5,681	2,660	3,518

The enrollment for the current school year at the Angier Elementary School was reported at 393 students as of October 1, 2011. The MSBA understands that the District is proposing a design enrollment to accommodate approximately 450 students, in grades K-5, at the Angier Elementary School.

With respect to future enrollments, the MSBA's enrollment forecast indicates Newton's K-5 enrollment will experience an increasing trend over the next six years with an average K-5 enrollment of approximately 6,065 students. This average over the next six years is approximately 385 students greater than the K-5 enrollment for the 2011-2012 school year.

In order to recommend a design enrollment for an appropriately sized project for the Angier Elementary School, the MSBA performed a capacity analysis of all Newton schools housing K-5 students. This capacity analysis, confirmed by discussions with the District, indicates the need for the Angier Elementary School project to allow for an expansion over current enrollment to relieve enrollment pressures at other elementary school facilities within the District. The MSBA understands that the District has implemented buffer zones along the lines of their elementary school districts to facilitate the management of the size of their elementary grade neighborhood schools. The District also demonstrated a willingness to implement redistricting beyond the buffer zones, if it should be required to realize the expanded capacity that is being proposed as part of this project. The MSBA also understands that the District is addressing district wide elementary school capacity issues outside of this project and, based on our meeting, that this project alone will not relieve all enrollment capacity needs.

The MSBA is recommending a design enrollment of 465 students for the proposed Angier Elementary School project, which would provide some relief to enrollment pressures in the District, while remaining consistent with the District's goal to maintain neighborhood elementary schools.

As part of the Feasibility Study, the District will be required to submit additional information regarding its existing elementary school district buffer zone policy, how it is implemented, and a locally approved draft plan that evaluates if the existing zones will be adequate to increase enrollment at the Angier Elementary School upon completion of the project, or if additional redistricting will be required.

Based on the MSBA enrollment forecast, capacity analysis and discussions with the District described above, the MSBA recommends a design enrollment of 465 students for the Angier Elementary School project. The MSBA believes this design enrollment positions the District to efficiently meet space capacity needs throughout future enrollment variations. Attached is the certification to confirm agreement on design enrollment.

If you have any questions, please do not hesitate to contact myself or Katie DeCristofaro ([Kathryn.DeCristofaro@MassSchoolBuildings.org](mailto:Kathryn.DeCristofaro@MassSchoolBuildings.org)) at 617-720-4466. Thank you very much.

Page 3  
March 12, 2012  
Newton Enrollment Letter

Sincerely,



Mary Pichetti  
Director of Capital Planning

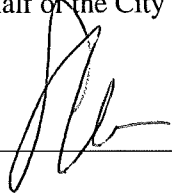
Cc: Senator Cynthia Stone Creem  
Representative Ruth Balser  
Representative Kay Khan  
Representative John Lawn  
Scott F. Lennon, President, Newton Board of Alderman  
Claire Sokoloff, Chair, Newton School Committee  
Dr. David A. Fleishman, Superintendent, Newton Public Schools  
Sandy Guryan, Deputy Superintendent, Newton Public Schools  
Alex Volcarce, Project Manager, City of Newton  
File: 1.2 Enrollment Projections (Region 4)

# MASSACHUSETTS SCHOOL BUILDING AUTHORITY

## ANGIER ELEMENTARY SCHOOL DESIGN ENROLLMENT CERTIFICATION

As a result of a collaborative analysis with the Massachusetts School Building Authority ("MSBA") of enrollment projections and space capacity needs for the Proposed Project at the Angier Elementary School, the City of Newton hereby acknowledges and agrees that the design of the Proposed Project at the Angier Elementary School shall be based on an enrollment of no more than 465 students. The City of Newton further acknowledges and agrees that, pursuant to 963 CMR 2.00 *et seq.*, the MSBA shall determine the square feet per student space allowance and total square footage for a K-5 school serving 465 students. The City of Newton acknowledges and agrees that it has no right or entitlement to any particular design enrollment, square feet per student space allowance, or total square footage and that it has no right or entitlement to a design enrollment any greater than 465 students for the Angier Elementary School, and further acknowledges and agrees that it shall not bring any claim or action, legal or equitable, against the MSBA, or any of its officers or employees, for the purpose of obtaining an increase in the design enrollment of the Angier Elementary School that it has acknowledged and agreed to herein. The City of Newton further acknowledges and agrees that, among other things, the design enrollment, square feet per student space allowance, and total square footage of the Angier Elementary School shall be subject to the approval of the MSBA's Board and that the final approval of a Proposed Project at the Angier Elementary School shall be within the sole discretion of the MSBA's Board.

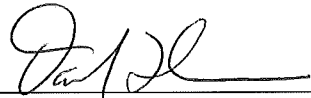
The undersigned, for themselves and the City of Newton, hereby certify that that they have read and understand the contents of this Design Enrollment Certification and that each of the above statements is true, complete and accurate. The undersigned also hereby certify that they have been duly authorized by the appropriate governmental body to execute this Certification on behalf of the City of Newton and to bind the City of Newton to its terms.



Mayor, City of Newton

3/14/12

Date



Superintendent of Schools

3/14/12

Date



Duly Authorized Representative of School  
Committee

3/14/12

Date

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## **PART 7: APPENDIX**

- Capital Budget Statement





FY2014-2018 CIP by Priority								ESCALATED COSTS				
								(Costs in FY2015-2018 are escalated 3.5% a year)				
								Total	Total	Total	Total	Total
SCHOOL DEPARTMENT								\$ 46,641,575	\$ 40,233,912	\$ 55,880,081	\$ 41,272,841	\$ 37,477,694
Priority	Dept	Project Title	Project Description / Justification	Est Cost in FY2014	Risk Factor	Funding Source	Prior Year Funding	FY 2014	FY2015	FY2016	FY2017	FY2018
1	Schools	Angier School - Renovation or Replacement	\$7.5M anticipated from MSBA. Renovate/ replace 92 yr old school due to poor condition, aging bldg systems and inadequate space per State Ed standards.	\$ 35,000,000	63.1	Bonding /MSBA	\$ 750,000	\$ 5,000,000	\$ 17,500,000	\$ 12,500,000		
2	Schools	Carr School - Building Renovation	Create swing space for on-going Elem. school bldg projects. Includes system and accessibility upgrades, sprinklers, sitework, windows, and roof.	\$ 12,700,000	55.1	Bonding	\$ 1,000,000	\$ 11,700,000				
6	Schools	Remove Underground Tanks at Various Schools	Remove underground tanks which are no longer needed at Memorial-Spaulding, Zervas, and Underwood Elementary Schools.	\$ 250,000	50.6	Other		\$ 250,000				
7	Schools	Lincoln Eliot School - Add Four Modular Classrooms	Add modular classrooms for growing enrollment. Project includes sprinklers for the entire building as required by building code.	\$ 3,000,000	50.5	Bonding		\$ 3,000,000				
11	Schools	Cabot School - Renovation and Addition/Replacement	FY14 feasibility study. Project will address aging systems, access, sprinklers, and space needs. Include cost to move to Carr and back to Cabot. \$7.5M anticipated from MSBA.	\$ 37,500,000	50.0	Bonding /MSBA		\$ 750,000		\$ 15,000,000	\$ 22,500,000	
14	Schools	Zervas and Bigelow School Electrical Upgrades	Upgrades to electrical system and replace panels at Bigelow Middle School and Zervas Elementary School.	\$ 80,000	49.5	Bonding		\$ 80,000				
15	Schools	Bowen School - Mechanical Upgrades	Remove underground storage tank and replace or convert to gas if enough gas pressure. Leak detection system has failed.	\$ 100,000	49.5	Bonding		\$ 100,000				
19	Schools	Horace Mann - Add Classroom	Additional classroom needed to address immediate space needs. Create new classroom within existing building footprint.	\$ 75,000	49.1	Other		\$ 75,000				
22	Schools	Ed Center - Pre-K Building Upgrades	Renovate toilet rooms for Pre-school and other improvements to correct water infiltration issues and address HVAC and space needs.	\$ 1,000,000	49.0	Bonding		\$ 1,000,000				
24	Schools	Ward School - Accessible Entrance	Code required project to provide accessible entrance, toilet, and water fountain.	\$ 200,000	48.9	Bonding		\$ 200,000				
32	Schools	Zervas School - Renovation and Addition/ Replacement	FY14 feasibility study. Project to address space needs due to growing enrollment, bldg systems, access. Include cost to move to Carr and back to Zervas	\$ 42,500,000	48.6	Bonding /MSBA		\$ 750,000				\$ 17,500,000
36	Schools	Peirce School - Mechanical Upgrades	Replace one 60 yo boiler and associated systems. 2nd boiler and DDC conversion in future project. Remove underground tank.	\$ 240,000	48.3	Bonding			\$ 248,400			
40	Schools	Horace Mann School - Exterior Masonry	Concrete around building has settled and cracked in various places creating a tripping hazard. Repair to prevent further deterioration.	\$ 100,000	47.6	Bonding			\$ 103,500			
45	Schools	Lincoln Eliot School - Plumbing Upgrades	Replace deteriorated sanitary pipe, distribution, risers and vents, toilet rooms. Assess issues in FY15 to determine scope of additional work.	\$ 650,000	47.1	Bonding			\$ 207,000		\$ 498,923	
47	Schools	Horace Mann School - Electrical/ Emergency Generator	Replace emergency generator with smaller unit and install battery back-up emergency egress lighting system. Upgrade elec service/ panels.	\$ 350,000	47.1	Bonding			\$ 129,375			
49	Schools	Remove Underground Tanks at Various Schools	Remove underground tanks which are no longer needed at Bigelow Middle School, NSHS, and the Ed Center.	\$ 260,000	47.0	Other			\$ 269,100			
69	Schools	Ed Center - Electrical Upgrades	Upgrade electric service, panels and sub-panels to support IT server room and other building functions.	\$ 225,000	44.6	Bonding				\$ 241,026		
72	Schools	Ed Center - Exterior Masonry Work	Repair, repoint and clean exterior masonry. This is Phase II of work begun in FY13.	\$ 400,000	44.1	Bonding				\$ 107,123		

Priority	Dept	Project Title	Project Description / Justification	Est Cost in FY2014	Risk Factor	Funding Source	Prior Year Funding	FY 2014	FY2015	FY2016	FY2017	FY2018
75	Schools	FA Day School - Replace Boilers	Replace two 60 year old boilers and variable air volume (VAV) coil work.	\$ 450,000	43.8	Bonding				\$ 107,123	\$ 388,051	
81	Schools	Horace Mann School - Replace Roof	Replace Total Building 1986 Built up roof area. Roof has reached its life expectancy.	\$ 375,000	43.5	Bonding				\$ 401,709		
83	Schools	Remove Underground Tanks at Various Schools	Remove underground tanks which are no longer needed at Lincoln-Eliot, Pierce, and Franklin Elementary Schools.	\$ 280,000	43.4	Other				\$ 299,943		
92	Schools	Bigelow School - Mechanical Upgrades	Boilers are 54 years old and beyond their useful life. Replace one boiler now and one in future year.	\$ 250,000	40.8	Bonding					\$ 277,179	
93	Schools	Brown School - Mechanical Upgrades	Study options for repair /replacement. Steam system has failed. \$50K/yr to address steam leaks. Hot water conversion in next ten years (\$2M). Periodically causes	\$ 2,000,000	40.5	Other					\$ 55,436	
101	Schools	Lincoln Eliot School - Replace Emergency Generator	Replace emergency generator with smaller unit and install battery back-up emergency egress lighting system.	\$ 150,000	40.1	Bonding					\$ 166,308	
104	Schools	Remove/Replace Underground Tanks at Various Schools	Remove underground tanks which are no longer needed at Williams, Mason-Rice, and Ward Schools.	\$ 260,000	39.8	Other					\$ 288,267	
113	Schools	Brown School - Replace Underground Storage Tank	Tank is beyond useful life and needed to ensure safe fuel supply to the building.	\$ 200,000	38.1	Bonding					\$ 221,744	
123	Schools	Ed Center - Mechanical Upgrades	Replace boiler, second boiler and hot water conversion in out years. Boilers are 35 years old.	\$ 1,000,000	37.6	Bonding						\$ 286,881
132	Schools	Newton South High School - Fire Alarm Upgrades	Upgrade fire alarm system to be fully addressable.	\$ 150,000	37.3	Bonding						\$ 172,128
133	Schools	Remove/Replace Underground Tanks at Oak Hill Middle School	Replace underground tanks that are beyond useful life at Oak Hill Middle School. If possible, convert to gas and remove tanks.	\$ 230,000	37.2	Other						\$ 263,930
139	Schools	Ed Center - Accessibility Upgrades	Upgrade elevator, door hardware, and signage for accessibility.	\$ 400,000	37.1	Bonding						\$ 114,752
140	Schools	Burr School - Accessibility Upgrades	Upgrade entrance ramp, elevator, toilet rooms, and door hardware for accessibility.	\$ 300,000	37.1	Bonding						\$ 114,752
141	Schools	Newton South High School - Mechanical Upgrades	Replace air handlers and roof top equipment and remove underground storage tanks.	\$ 375,000	37.1	Bonding						\$ 430,321
155	Schools	Ward School - Mechanical Upgrades	Hot water conversion and distribution as part of future major renovation. (Could also keep the steam system for approx \$500K). Include in major renovation.	\$ 2,000,000	36.2	Bonding						
156	Schools	Ward School - Accessibility Improvements	Future building renovation will address hardware, toilets, elevator, etc. (stage access, railings signage, water fountains).	\$ 1,480,000	36.2	Bonding						
158	Schools	Bowen School - Roof Replacement	Replace of 1950's portion of the building's roofing system as it has reached its life expectancy.	\$ 180,000	36.2	Bonding						
159	Schools	Mason Rice School - Electrical Upgrades	Replace emergency generator, electrical panels and sub-panels.	\$ 325,000	36.1	Bonding						
160	Schools	Peirce School - Plumbing Upgrades	Sanitary piping is deteriorating. Upgrades to toilet rooms and water fountains	\$ 225,000	36.0	Bonding						
161	Schools	Mason Rice School - Replace Roof	Replace the 1990's Sarnifil roofing system on the main portion of the building. Existing roof has reached its life expectancy.	\$ 580,000	35.9	Bonding						

Priority	Dept	Project Title	Project Description / Justification	Est Cost in FY2014	Risk Factor	Funding Source	Prior Year Funding	FY 2014	FY2015	FY2016	FY2017	FY2018
162	Schools	Bigelow School - Roof Replacement	Replace entire building roof system. Roof is beyond its useful life.	\$ 750,000	35.9	Bonding						
163	Schools	Burr School - Replace Roof	Replace the total building roofing system installed in the 1980's.	\$ 450,000	35.9	Bonding						
168	Schools	Mason Rice School - Mechanical Upgrades	Direct Digital Controls conversion and upgrade heating distribution system.	\$ 450,000	35.6	Bonding						
170	Schools	Bowen School - Mechanical Upgrades	Replace interior air handlers in first year. Direct Digital Controls conversion.	\$ 325,000	35.5	Bonding						
173	Schools	Burr School - Sitework Sidewalk Ramp Repairs	Front stair railing collapsing; catch basin at entrance plaza, parking area, make accessible route	\$ 280,000	35.4	Bonding						
174	Schools	Bigelow School - Replace Windows and Doors	Replace aging windows and exterior doors to improve comfort, operation, and energy efficiency.	\$ 400,000	35.4	Bonding						
175	Schools	Underwood School - Accessibility Upgrades	Accessibility upgrades including compliant door hardware, Toilets, and Elevator	\$ 415,000	35.4	Bonding						
180	Schools	Memorial Spaulding School - Mechanical Upgrades	Replace controls, air handlers. Replace 2nd boiler, hot water conversion, and Direct Digital Controls conversion.	\$ 750,000	35.2	Bonding						
181	Schools	Underwood School - Replace Roof	Replace whole building roof in 2 phases.	\$ 450,000	35.1	Bonding						
182	Schools	Oak Hill School - Mechanical Upgrades - Roof Top Units and Distribution System	Replace Roof top air handling units and distribution system	\$ 250,000	35.1	Bonding						
183	Schools	Newton South High School - Electrical Upgrades	Upgrades to Lighting and controls	\$ 150,000	35.1	Bonding						
190	Schools	Williams School - Mechanical Upgrades	Replace Air handlers. Direct Digital Controls conversion for HVAC system.	\$ 200,000	34.9	Bonding						
191	Schools	Underwood School - Mechanical Upgrades	Upgrade Distribution system, controls, and remove underground tank.	\$ 525,000	34.9	Bonding						
193	Schools	Countryside School - Mechanical Upgrades	Replace RTUs at Annex, Direct Digital Control conversion	\$ 250,000	34.9	Bonding						
194	Schools	Ward School - Mechanical Upgrades	Replace second boiler and steam trap work.	\$ 300,000	34.9	Bonding						
195	Schools	Bigelow School - Mechanical Upgrades	Replace 2nd boiler and associated equipment, distribution and univents. Boilers are 54 years old. Replace one boiler in the first year.	\$ 960,000	34.9	Bonding						
201	Schools	Lincoln Eliot School - Mechanical Upgrades	Hot water conversion w/renovation, 2nd boiler and distribution system.	\$ 525,000	34.6	Bonding						
210	Schools	Bowen School - Electrical Upgrades	Replace electrical panels and sub-panels in original buildings.	\$ 75,000	34.2	Bonding						
215	Schools	Horace Mann School - Accessibility Upgrades	Upgrade toilet rooms, water fountains and door hardware for accessibility.	\$ 220,000	33.9	Bonding						
223	Schools	Ward School - Electrical Upgrades	Upgrade electrical panels and distribution system.	\$ 210,000	33.6	Bonding						

Priority	Dept	Project Title	Project Description / Justification	Est Cost in FY2014	Risk Factor	Funding Source	Prior Year Funding	FY 2014	FY2015	FY2016	FY2017	FY2018
235	Schools	Ward School - Replace Roof	Replace Flat Gym 1980's built up roofing system. It has reached its life expectancy.	\$ 160,000	33.1	Bonding						
236	Schools	Memorial Spaulding School - Replace Roof	Replace 1980's Built up roof area. It has reached its life expectancy.	\$ 350,000	33.1	Bonding						
239	Schools	Bigelow School - Accessibility Upgrades	Upgrade toilet rooms, elevator, door hardware and signage for accessibility	\$ 400,000	33.1	Bonding						
249	Schools	Lincoln Eliot School - Replace Windows and Doors	Replace windows in 1965 addition and 1975 clerestory windows	\$ 280,000	32.0	Bonding						
251	Schools	FA Day School - Accessibility Upgrades / Replace Elevator	Upgrades for ADA Compliant elevator, toilet rooms, door hardware, and signage	\$ 350,000	32.0	Bonding						
255	Schools	Franklin School - Building Envelope	Replace windows and doors and repair/restore masonry.	\$ 700,000	31.7	Bonding						
259	Schools	Horace Mann School - Restore/Replace Modular	Existing modular is nearing the end of its useful life and will need to be reconditioned or replaced with permanent construction	\$ 1,000,000	31.2	Bonding						
266	Schools	Franklin School - Mechanical Upgrades	Replace boilers, hot water conversion, and Direct Digital Control conversion.	\$ 825,000	30.2	Bonding						
267	Schools	Bowen School - Accessibility Upgrades	Upgrades to toilet rooms, signage, hardware, railings and assembly spaces for accessibility.	\$ 200,000	30.1	Bonding						
268	Schools	Franklin School - Accessibility and Plumbing Upgrades	Upgrade Toilet rooms, Water fountains, Door hardware and signage for accessibility.	\$ 365,000	30.1	Bonding						
269	Schools	Mason Rice School - Accessibility Upgrades	Upgrade hardware, toilet rooms, and water fountains for accessibility.	\$ 185,000	30.1	Bonding						
270	Schools	Memorial Spaulding School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, water fountains, and signage for accessibility.	\$ 300,000	30.1	Bonding						
271	Schools	Lincoln Eliot School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, elevator, entrance ramp, and signage for accessibility.	\$ 940,000	30.1	Bonding						
277	Schools	Underwood School - Electrical Upgrades	Upgrades to electrical panels and sub-panels and emergency generator	\$ 100,000	29.6	Bonding						
278	Schools	Williams School - Accessibility Upgrades	Upgrade door hardware, openings, toilet rooms, railings, and signage for accessibility.	\$ 250,000	29.6	Bonding						
285	Schools	Peirce School - Accessibility Upgrades	Upgrades to door hardware, toilet rooms, railings, and signage for accessibility.	\$ 300,000	28.4	Bonding						
290	Schools	Lincoln Eliot School - Electrical Upgrades	Replace electric panels and sub-panels.	\$ 125,000	26.7	Bonding						
295	Schools	Peirce School - Electrical Upgrades	Replace electric panels and sub-panels.	\$ 75,000	26.1	Bonding						
296	Schools	Zervas School - Plumbing Upgrades	Upgrades toilet rooms and water fountains.	\$ 100,000	26.1	Bonding						
297	Schools	Burr School - Electrical Upgrades	Replace electric panels and sub-panels	\$ 100,000	26.1	Bonding						

Priority	Dept	Project Title	Project Description / Justification	Est Cost in FY2014	Risk Factor	Funding Source	Prior Year Funding	FY 2014	FY2015	FY2016	FY2017	FY2018
300	Schools	<b>Countryside School - Plumbing Upgrades</b>	Upgrade toilet rooms and water fountains, and add fixtures per code requirements.	\$ 125,000	26.0	Bonding						
302	Schools	<b>Horace Mann School - Mechanical Upgrades</b>	Replace 2nd boiler and replace modular roof top air handling units	\$ 300,000	25.7	Bonding						
304	Schools	<b>Ward School - Replace Windows and Doors</b>	Replace windows in gym wing and storefront system.	\$ 425,000	25.6	Bonding						
306	Schools	<b>Countryside School - Replace Windows and Doors</b>	Replace single pane storefront system in connector and annex windows and exterior doors.	\$ 500,000	25.3	Bonding						
307	Schools	<b>Brown School - Accessibility Upgrades</b>	Upgrade existing elevator for code compliance, signage, hardware, and reconfigure locker rooms for accessibility.	\$ 600,000	24.8	Bonding						
308	Schools	<b>Countryside School - Accessibility Upgrades</b>	Upgrade toilets, signage, door hardware, and accessible entrance.	\$ 150,000	24.8	Bonding						
313	Schools	<b>Schools - Repave Parking Areas</b>	Repave parking areas and sidewalks in poor condition at Ward, Brown, Underwood, Mason Rice, Oak Hill, Williams, Zervas and Peirce.	\$ 400,000	23.7	Bonding						

\$22,905,000 \$18,457,375 \$28,656,923 \$24,395,908 \$18,882,765

**\$113,297,971 - Schools Total projected to be funded over 5 years**

## Capital Budget

### Capital Budget History

The following is a list of all tax overrides, capital exclusions, and debt exclusions sought by the district and any of its associated municipalities and schools as provided by the Massachusetts Department of Revenue.

Vote Date	Municipality	Category	Description	Amount	Yes Votes	No Votes	Win / Loss
04/30/2002	NEWTON	Debt Exclusion	General Government and School Expenditures		14251	13542	Win
04/30/2002	NEWTON	Override	General Government and School Expenditures	11,500,000	14251	13542	Win

1.	Please provide any comments, corrections, or additions to the information listed above.	The 4/30/2002 Override was a Levy Limit Override not a Debt Exclusion Override.
2.	Please describe any capital projects that were deferred due to funding constraints.	In the past decade funding constraints have resulted in a capital program which funds some priority items but must always defer others. Deferred projects have included boilers and other HVAC system components, window and door replacements, emergency generators and masonry for building envelope.

### Capital Improvement Plan and Budget

1.	<p>Please upload a document or documents that list, by year and by item, your anticipated district, municipal, and school capital spending for the next five years. Your attachment(s) can be in any format, but must include the following information:</p> <ul style="list-style-type: none"> <li>• Fiscal year of expected implementation for each item</li> <li>• Whether each item is for the entire district, an individual municipality( and which), or a school ( and which)</li> <li>• Description of scope or need for work</li> <li>• Estimated Cost</li> <li>• Funding mechanism(override or debt exclusion, if known)</li> <li>• Term of debt (if known)</li> </ul>	
	Attachment(s)	<a href="#">MSBA Newton CIP Document 2_15_12.pdf</a> , Date Uploaded: 2/21/2012
2.	Please provide any information the district has about the availability of non-public funds for school facility purposes.	The only non public funds which have been available for school purposes are utility rebates for replacing lighting with energy efficient fixtures in years prior to the Energy Services project (ESCO) and also in conjunction with the ESCO project.
3.	Please provide information from the Treasurer, Finance Committee, and/or Capital Planning Committee regarding the current outstanding debt and future bonding capacity inside the debt limit for the municipality/municipalities.	As of January 31, 2012 the City of Newton Total Long Term Issued Bonded Debt amounted to \$214,821,055, inclusive of Water/Sanitary Sewer/Stormwater Enterprise Funds and Community Preservation Funds. Additionally, as of February 17, 2012 the City of Newton Total Authorized and Unissued Debt amounted to \$33,431,357, with \$11,492,629 of that authorized for Governmental General Fund projects. Further, as of June 30, 2011 the City of Newton Legal Debt Limit amounted to \$1,125,310,655. Total Net Debt applicable to the Normal Debt Limit totalled \$191,994,800, leaving a Legal Debt Margin of \$933,315,855.

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## **PART 7: APPENDIX**

- Project Directory



## Angier Elementary School - Newton, MA

## Project Directory

Name		e-mail address	phone	title	OPM + Design Team (JLA + DDP)	Working Group	Angier School Building Committee (ASBC)	Design Review Committee (DRC)
Jeff	Luxenberg	<a href="mailto:jluxenberg@joslinlesser.com">jluxenberg@joslinlesser.com</a>	(617) 644-3118	JLA, Executive Director	✓			
David	Krawitz	<a href="mailto:dkrawitz@joslinlesser.com">dkrawitz@joslinlesser.com</a>	(617) 744-3121	JLA, Project Manager	✓			
Melissa	Gagnon	<a href="mailto:mgagnon@joslinlesser.com">mgagnon@joslinlesser.com</a>	(617) 744-3120	JLA, Asst Project Manager	✓			
Ken	DiNisco	<a href="mailto:k.dinisco@dinisco.com">k.dinisco@dinisco.com</a>	(617) 426-2858	DiNisco Design, Principal	✓			
Donna	DiNisco	<a href="mailto:d.dinisco@dinisco.com">d.dinisco@dinisco.com</a>	(617) 426-2858	DiNisco Design, Principal	✓			
Leno	Filippi	<a href="mailto:l.filippi@dinsico.com">l.filippi@dinsico.com</a>	(617) 426-2858	DiNisco Design, Proj Architect	✓			
Peter	Barrer	<a href="mailto:pbarrer@verizon.net">pbarrer@verizon.net</a>	(617) 244-8421	Engineer				✓
Carol	Chafetz	<a href="mailto:Carol_Chafetz@newton.k12.ma.us">Carol_Chafetz@newton.k12.ma.us</a>	(617) 559-9010	Dir of Operations + Envir Affairs, School Dept		✓	staff	
Mark	Chudy	<a href="mailto:chudymx@stvinc.com">chudymx@stvinc.com</a>	(617) 965-4635	Engineer				✓
Arthur	Cohen	<a href="mailto:acohen@arcusa.com">acohen@arcusa.com</a>	(617) 547-2200	Architect			non-voting	chair
Michael	Cronin	<a href="mailto:michael_cronin@newton.k12.ma.us">michael_cronin@newton.k12.ma.us</a>	(617) 559-9001	Chief of Operations School Dept			staff	
Mitchell	Fischman	<a href="mailto:mfischman@newtonma.gov">mfischman@newtonma.gov</a>	(617) 964-0826	Alderman				✓
Theresa	Fitzpatrick	<a href="mailto:tabilel@yahoo.com">tabilel@yahoo.com</a>	(617) 332-1654	President, Waban Improvement Society			✓	
David	Fleishman	<a href="mailto:david_fleishman@newton.k12.ma.us">david_fleishman@newton.k12.ma.us</a>	(617) 559-6100	Superintendent of Schools				
Robert A.	Franchi	<a href="mailto:Ra_franchi_corp@verizon.net">Ra_franchi_corp@verizon.net</a>	(617) 244-5370	Contractor				✓
Ruthanne	Fuller	<a href="mailto:rfuller@newtonma.gov">rfuller@newtonma.gov</a>	(617) 738-5311	Alderman		✓	✓	
Leonard	Gentile	<a href="mailto:lgentile@newtonma.gov">lgentile@newtonma.gov</a>	(617) 527-5446	Alderman			✓	
Stephanie	Gilman	<a href="mailto:sgilman@newtonma.gov">sgilman@newtonma.gov</a>	(617) 796-1600	Commissioner of Public Buildings		✓	✓	✓
Sandra	Guryan	<a href="mailto:sandy_guryan@newton.k12.ma.us">sandy_guryan@newton.k12.ma.us</a>	(617) 599-9027	Deputy Superintendent and CAO, School Dept		✓	co-chair	
Jennifer	Hill	<a href="mailto:jhill@newtonma.gov">jhill@newtonma.gov</a>	(617) 796-1100	Purchasing Department			non-voting	
Jonathan	Kantar	<a href="mailto:jonathan@sagebuilders.com">jonathan@sagebuilders.com</a>	(617) 965-5272	Green Construction Services				✓
Andrea	Kelley	<a href="mailto:RTCdesign@aol.com">RTCdesign@aol.com</a>	(617) 964-4609	Landscape Architect				✓
Loreta	Lamberti	<a href="mailto:loreta_lamberti@newton.k12.ma.us">loreta_lamberti@newton.k12.ma.us</a>	(617) 559-9300	Angier School Principal			✓	
Maureen	Lemieux	<a href="mailto:mlemieux@newtonma.gov">mlemieux@newtonma.gov</a>	(617) 796-1100	CFO		✓	✓	
Ellen S.	Light	<a href="mailto:elslight@rcn.com">elslight@rcn.com</a>	(617) 964-2193	Architect				✓
Joshua	Morse	<a href="mailto:jmorse@newtonma.gov">jmorse@newtonma.gov</a>	(617) 796-1600	Director of Operations Public Buildings			staff	
Nicholas	Read	<a href="mailto:nread@newtonma.gov">nread@newtonma.gov</a>	(617) 796-1222	Chief Procurement Officer			non-voting	
John	Rice	<a href="mailto:jrice@newtonma.gov">jrice@newtonma.gov</a>	(617) 201-7088	Alderman		✓	✓	

## Angier Elementary School - Newton, MA

## Project Directory

Name		e-mail address	phone	title	OPM + Design Team (JLA + DDP)	Working Group	Angier School Building Committee (ASBC)	Design Review Committee (DRC)
Emily	Prenner	<a href="mailto:premily@yahoo.com">premily@yahoo.com</a>	(617) 969-0897	Angier PTO President, Local Resident			✓	
Robert	Rooney	<a href="mailto:rrooney@newtonma.gov">rrooney@newtonma.gov</a>	(617) 796-1100	COO		✓	chair	
Joseph	Russo	<a href="mailto:joseph_russo@newton.k12.ma.us">joseph_russo@newton.k12.ma.us</a>	(617) 559-6105	Asst Superintendent for Elementary Education				
Steven	Siegel	<a href="mailto:steven_siegel@newton.k12.ma.us">steven_siegel@newton.k12.ma.us</a>	(617) 901-4959	Structural Engineer		✓	School Committee	
Claire	Sokoloff	<a href="mailto:claire_sokoloff@newton.k12.ma.us">claire_sokoloff@newton.k12.ma.us</a>	(617) 816-4469	School Committee Chair			chair, School	
Alex	Valcarce	<a href="mailto:avalcarce@newtonma.gov">avalcarce@newtonma.gov</a>	(617) 796-1609	Proj Mgr, Public Buildings		✓	staff	
V.Victors	Vitols	<a href="mailto:victor@vmyvitols.com">victor@vmyvitols.com</a>	(617) 332-7832	Architect				✓
Setti	Warren	<a href="mailto:swarren@newtonma.gov">swarren@newtonma.gov</a>	(617) 796-1100	Mayor, Chief Executive Officer				
Jonathan	Yeo	<a href="mailto:jonathanyeo@comcast.net">jonathanyeo@comcast.net</a>	(617) 828-1645	School Committee		✓	School Committee	✓
Ouida	Young	<a href="mailto:oyoung@newtonma.gov">oyoung@newtonma.gov</a>	(617) 796-1240	Assoc City Solicitor, PTO Co-President		✓	staff	

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## **PART 7: APPENDIX**

- Project Schedule

Angier Elementary School - Newton, MA

Projected Meeting and Milestone Schedule:  
Designer Selection, Feasibility Study and Schematic Design

Date & Time	Item	Location
✓ Fri 06/27/12	Develop Draft of Designer RFS	
✓ Thurs 07/19/12 ---	Submit DRAFT RFS to MSBA	---
✓ Tues 07/24/12 ---	Submit RFS Ad to Central Register	---
✓ Thurs 07/26/12 ---	Submit RFS Ad to Boston Globe	---
✓ Mon 07/31/12 ---	MSBA to Return RFS comments	---
✓ Wed 08/01/12 9:00AM	Issue RFS (post to JLA website)	---
✓ Thurs 08/09/12 8:45AM	Working Group Meeting	City Hall, Rm 209
✓ Thurs 08/09/12 11:00AM	Briefing Session	Angier ES Library
✓ Fri 08/10/12 5:00PM	Questions Due from Designers	
✓ Mon 08/13/12 5:00PM	Responses to Questions Posted	
✓ Thurs 08/16/12 2:00PM	Designer Proposals Due	---
✓ Mon 08/20/12 ---	Submit Proposals and Review Matrix to Local Members	---
✓ Mon 08/20/12 ---	Proposals Posted Electronically on City Website	---
✓ Mon 08/20/12 ---	Submit Proposal Review Matrix to MSBA	---
✓ Thurs 08/23/12 8:45AM	Pre-Visioning Session/Working Group	City Hall, Rm 209
✓ Thurs 09/06/12 8:45AM	Working Group Meeting	City Hall, Rm 209
✓ Fri 09/07/12 ---	JLA to Collect Comments from Designer Selection Committee	---
✓ Thurs 09/13/12 8:30AM	JLA to Meet w/Local DSP Members to Explain Protocols	City Hall, Rm 209
✓ Thurs 09/13/12 7:00PM	ASBC and DRC Meeting	100 Walnut St, Room 210
✓ Tues 09/18/12 AM	Designer Selection Panel Meeting	MSBA
✓ Tues 10/02/12 AM	Designer Selection Panel interviews	MSBA
✓ Oct 2012 ---	Designer commences work	
✓ Fri 10/05/12 10:00AM	Kick off meeting with JLA and DiNisco Design	JLA
✓ Wed 10/10/12 10:00AM	Principal's Meeting (district wide)	100 Walnut St, Room 210
✓ Thurs 10/11/12 8:45AM	Working Group meeting to review strategic plan and educational approach	
week of 10/15/12 AM	Meetings with user groups and Town departments	
✓ Thurs 10/18/12 2:30PM	Educational Programming Meeting	100 Walnut St
✓ Thurs 10/18/12 5:00PM	Meeting with ASBC/DRC to review evaluation criteria and construction delivery alternatives	100 Walnut St, Room 210

Angier Elementary School - Newton, MA

Projected Meeting and Milestone Schedule:  
Designer Selection, Feasibility Study and Schematic Design

	Date & Time			Item	Location
✓	Mon	10/23/12	10:00AM	Kick off meeting with the MSBA	Angier ES
✓	Mon	10/22/12	11:00AM	Educational Programming meeting	
✓	Thurs	10/25/12	8:45AM	Educational Programming meeting	
✓	Tues	10/30/12	10:00AM	School Dept meeting, review of Educational Programming	
✓	Mon	11/05/12	7:00PM	School Committee meeting to review education program, working group meeting	100 Walnut St, Room 210
✓	Thurs	11/08/12	8:45AM	Working Group meeting (educational program follow up, review proposed revised meeting schedule)	City Hall, Room 209
✓	Thurs	11/08/12	10:30AM	Update meeting with Superintendent	100 Walnut St
✓	Thurs	11/15/12	9:15AM	Working Group meeting (review programming and design massing alternatives)	City Hall, Room 209
✓	Thurs	11/15/12	5:00PM	Meeting with ASBC/DRC to review programming and design massing alternatives	100 Walnut St, Room 210
✓	Mon	11/19/12	8:00PM	Meeting with ASBC/DRC presentation to Board of Aldermen and School Committee	City Hall, Aldermanic Chamber
✓	Tues	11/27/12	3:15PM	Tour Eliot Elementary School in Needham	
✓	Thurs	11/29/12	8:45AM	Working Group meeting (review site strategy and design massing alternatives)	City Hall, Room 209
✓	Thurs	11/29/12	2:00PM	Traffic meeting	City Hall, planning room
✓	Thurs	11/29/12	5:00PM	Meeting with ASBC/DRC to review site strategy and design massing alternatives	100 Walnut St, Room 210
✓	Friday	11/30/12	9:00AM-3:45PM	Tours Cummings ES (Winthrop), Howe-Manning ES (Middleton) and Parker ES (Billerica)	meet at 100 Walnut St
✓	Thurs	12/06/12	8:45AM	Working Group meeting	City Hall, Room 209
✓	Fri	12/14/12	---	Distribute Draft of PDP Executive Summary to ASBC/DRC	
✓	Thurs	12/20/12	5:00PM	Meeting with ASBC/DRC: Vote to Authorize Submittal of PDP	100 Walnut St, Room 210
12/21/12 to 01/03/13 ---				Preliminary Design Program Report Submission to MSBA	
	Thurs	01/03/13	8:45AM	Working Group Meeting: Design Update	City Hall, Room 209
	Thurs	01/10/13	6:00PM	Meeting with ASBC/DRC: Presentation to Board of Aldermen and School Committee and Public Input	Newton North Library
	Thurs	01/17/13	8:45AM	Working Group Meeting: Review Executive Summary for Preferred Schematic and Design Update	City Hall, Room 209
	Fri	01/18/12	---	Distribute Executive Summary for Preferred Schematic to ASBC/DRC	

## Angier Elementary School - Newton, MA

## Projected Meeting and Milestone Schedule:

## Designer Selection, Feasibility Study and Schematic Design

Date & Time			Item	Location
Thurs	01/24/13	8:45AM	Working Group Meeting	City Hall, Room 209
Thurs	01/31/13	5:00PM	Meeting with ASBC/DRC: Approve Concept Design (Preferred Schematic Alternative)	100 Walnut St, Room 210
Tues	02/13/13	6:00PM	February Public Forum	Angier ES Library
<b>Thurs</b>	<b>02/14/13</b>	---	<b>Submit Preferred Schematic Report Submission to MSBA</b>	
	02/27/13 or 03/20/13		MSBA Facilities Assessment Subcommittee	
Wed	04/03/13	---	MSBA Board Meeting to Approve Preferred Option	
	04/04/13 to 06/20/13	---	Schematic Design	---
	Jun 2013	TBD	Designer Review Committee approval; Newton Code Section 5-58 Approvals	TBD
Thurs	06/13/13	---	Submit Schematic Design to MSBA	---
Wed	07/31/13	---	MSBA Board Meeting to Approve Schematic Design	---
	Aug 2013	---	Local Approval of the Project - Appropriation by the Board of Aldermen for the Approved Budget Amount	

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## **PART 7: APPENDIX**

- Meeting Agenda and Minutes

## Angier Elementary School – Newton, MA

### Angier School Building Committee & Design Review Committee Joint Meeting

Thursday, September 13, 2012

Newton Education Center, 100 Walnut Street, Room 210

7:00 PM

## Agenda

### 1. Introductions

- Angier School Building Committee
- Design Review Committee
- Joslin Lesser + Associates, Owner's Project Manager

### 2. Designer Selection Process

### 3. Overview of Schedule

### 4. Other Business

### 5. Upcoming Committee Meetings

<b>ANGIER ELEMENTARY SCHOOL – Newton, MA</b>	<b>MEETING MINUTES</b>
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<b>Angier School Building Committee (ASBC) + Design Review Committee (DRC) Joint Meeting</b>	
Date: September 13, 2012	Location: 100 Walnut Street, Room 210
Time: 7:00 PM	



Attendees:

<b>Name</b>	<b>Assoc.</b>	<b>Present</b>	<b>Name</b>	<b>Assoc.</b>	<b>Present</b>
Arthur Cohen	ASBC, DRC	---	Peter Barrer	DRC	---
Michael Cronin	School Dept	---	Mark Chudy	DRC	---
Theresa Fitzpatrick	ASBC	Y	Mitchell Fischman	DRC	---
Ruthanne Fuller (Alderman)	ASBC	Y	Robert Franchi	DRC	---
Jennifer Hill	ASBC	Y	Jonathan Kantar	DRC	Y
Leonard Gentile (Alderman)	ASBC	---	Andrea Kelley	DRC	---
Stephanie Gilman	ASBC	---	Ellen Light	DRC	---
Sandra Guryan	ASBC Co-Chair, DRC	Y	Jeremy Munn	DRC	---
Loreta Lamberti (Principal)	ASBC	Y	Victor Vitols	DRC	---
Maureen Lemieux (CFO)	ASBC	---			
Joshua Morse (Public Bldgs)	ASBC	---	Carol Chafetz	School Dept.	Y
Read Nicholas	ASBC	Y	David Fleishman	Superintendent	---
Emily Prenner	ASBC, PTO	Y	Joseph Russo	Asst Super	Y
John Rice (Alderman)	ASBC	Y	Setti Warren	Mayor	---
Robert Rooney (COO)	ASBC Chair	Y			
Steven Siegel	ASBC	---	Jeffery Luxenberg	JLA	Y
Claire Sokoloff	ASBC	Y	David Krawitz	JLA	Y
Jonathan Yeo	ASBC, DRC	Y	Melissa Gagnon	JLA	Y
Ouida Young (Law Dept)	ASBC	Y			
Alex Valcarce (Public Bldgs)	ASBC	Y			

R. Rooney called the meeting to order at 7:15PM.

1. Introductions were made by the Angier School Building Committee, the Designer Review Committee and Joslin, Lesser + Associates (see attendees list above). JLA distributed a sign-in list.

A.Valcarce provided a brief overview of the project process to date. It was noted that Joslin, Lesser + Associates has been working with the City of Newton since July 2012 and has assisted with the designer briefing and the designer selection process.

2. Review of Designer Selection Process:  
JLA provided an overview of the designer selection process and noted the three local Designer Selection Panel (DSP) members who will represent the City of Newton locally: Jonathan Yeo, Maureen Lemieux and

Sandy Guryan. It was noted that the local DSP is to be comprised of (1) member from the School Committee, the Office of the Superintendent of Schools and the Mayor's Office. JLA noted the MSBA DSP meeting is scheduled for next Tuesday, September 18. Five proposals were submitted from the following designers: DiNisco Design, HMFH, Perkins Eastman, Mount Vernon Group and SMMA and Schwartz/Silver. The firms will be reviewed and ranked in order of preference; it is anticipated that the top 2 or 3 firms will be interviewed on October 2, 2012.

In response to an inquiry regarding the timing of the designer selection, JLA noted typically the MSBA will make a decision immediately following the interview on October 2.

3. Overview of Schedule:

JLA prepared and distributed a copy of a Projected Meeting and Milestone Schedule. JLA explained that the schedule reflects the current Feasibility Study phase of the project. The two main components of this phase are educational programming and options analysis. To move forward with the Schematic Design phase, the MSBA Board approval of the Preferred Schematic Design option is required; the MSBA Board approval is scheduled for March 27, 2013. It was noted that the construction delivery method will be reviewed; given the complexity of the project and constraints of the site, the City may want a CM. JLA noted at the completion of the criteria evaluation there will be a design option that appears to be the most feasible and it is anticipated this option will develop into the preferred SD option.

JLA reviewed meetings highlighted in bold (ASBC-DRC meetings) on the schedule. There was a consensus that for this phase the ASBC and the DRC will meet jointly, approximately every two weeks, on Thursday evenings at 6:00PM. The meeting on Thursday, October 18, will be at 5:00PM.

The Angier Elementary School Principal noted the meeting scheduled for 01/17/13 may need to be at 5:00PM due to the 5<sup>th</sup> grade concert.

JLA noted an agenda will be sent out ahead of time and when possible, meeting information will be sent out in advance.

4. Other Business:

*School Committee Vote*

A representative from the City noted after 10/25/12 there is an expectation that the School Committee will have a final vote on the educational program. The Chair of the School Committee noted this is the only vote required by the School Committee.

*Student Population*

The Chair of the School Committee inquired about whether there is any flexibility in the size of the proposed building and whether the student population can be greater than 465. The City noted there is a system wide need for greater capacity, although the City does not want to change the elementary school model on such a tight site.

The School department noted the Angier School houses grades K-5, the kindergarten program is full day and there is no pre-K program. JLA inquired whether there is a set policy regarding classroom size; the Chair of the School Committee noted ideally grades K-2 would be kept under 22 and grades 3-5 would be kept under 24. The School department noted 465 students = 24 classrooms (20 general classrooms and 4 for SPED); it was noted if the program becomes inclusive, there could be 22 general education classrooms and 2 SPED classrooms. JLA noted the MSBA requires a submission to the DESE regarding the SPED program. The School Committee noted 24 classrooms x 22 students/each = 538 students; there will be a higher capacity for more than 465 students.

JLA noted there are two measures of capacity: building SF and student population and sometimes there can be flexibility if there is an attempt to keep part of the existing school. If the building is all new construction, it is likely the MSBA will enforce the ratio. The School Department noted enrolment at the Angier is higher than when the City met with the MSBA last year. At the kick off meeting with the designer and the MSBA JLA will ask the question whether there is any flexibility regarding student population.

*Communication with the MSBA*

JLA explained there will be a kick off meeting with the MSBA and the selected designer. Throughout the process, the MSBA will call JLA periodically for status updates. JLA is required to file monthly reports which keep the MSBA informed of ongoing issues.

*Historic Commission*

An inquiry was made with regard to the one year delay from the historical commission. It was noted that the Angier School building is not on the State historic register. JLA noted unless a building is registered with the State, the City will not need to file with Mass Historic.

*CM at Risk Delivery Method*

It was noted that following a vote to approve moving forward with the CM at Risk delivery method, the City will need to prepare and file an application with the OIG by the end of 2012.

*Board of Aldermen Vote*

A representative from the City noted at this stage of the process, a formal vote is not required by the Board of Aldermen. The City noted it is important to manage the expectations of the BOA.

*Model School*

There was discussion about the possibility of the project as a MSBA model school, but this would only be possible if the design was to be new construction. JLA noted that for a model school, the MSBA must select the project and invite the community to participate, which is not currently the case.

5. Adjournment

There being no further business to come before the meeting, the meeting was adjourned at 8:35PM.

Respectfully submitted,

Melissa Gagnon  
Joslin, Lesser + Associates, Inc.

[End of 09/13/12 Meeting Minutes]

## Angier Elementary School – Newton, MA

### Angier School Building Committee & Design Review Committee Joint Meeting

Thursday, October 18, 2012

Newton Education Center, 100 Walnut Street, Room 210

5:00PM

## Agenda

### 1. Introductions

- DiNisco Design Partnership

### 2. Design Criteria Evaluation Matrix

### 3. Overview of Construction Delivery Methods

### 4. Other Business

### 5. Upcoming Meetings

- User Group Meetings (to be scheduled)
- October 25     6:00PM     Joint ASBC/DRC meeting
- November 15   6:00PM     Joint ASBC/DRC meeting and possible Public Forum

<b>ANGIER ELEMENTARY SCHOOL – Newton, MA</b>	<b>MEETING MINUTES</b>
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<b>Angier School Building Committee (ASBC) + Design Review Committee (DRC) Joint Meeting</b>	
Date: October 18, 2012	Location: 100 Walnut Street, Room 210
Time: 5:00 PM	



Attendees:

<b>Name</b>	<b>Assoc.</b>	<b>Present</b>	<b>Name</b>	<b>Assoc.</b>	<b>Present</b>
Arthur Cohen	ASBC, DRC	Y	Peter Barrer	DRC	Y
Michael Cronin	School Dept	Y	Mark Chudy	DRC	---
Theresa Fitzpatrick	ASBC	Y	Mitchell Fischman	DRC	---
Ruthanne Fuller (Alderman)	ASBC	Y	Robert Franchi	DRC	---
Jennifer Hill	ASBC	Y	Jonathan Kantar	DRC	Y
Leonard Gentile (Alderman)	ASBC	Y	Andrea Kelley	DRC	---
Stephanie Gilman	ASBC	Y	Ellen Light	DRC	Y
Sandra Guryan	ASBC Co-Chair, DRC	Y	Jeremy Munn	DRC	---
Loreta Lamberti (Principal)	ASBC	Y	Victor Vitols	DRC	---
Maureen Lemieux (CFO)	ASBC	---			
Joshua Morse (Public Bldgs)	ASBC	---	Carol Chafetz	School Dept.	Y
Nicholas Read	ASBC	Y	David Fleishman	Superintendent	Y
Emily Prenner	ASBC, PTO	Y	Joseph Russo	Asst Super	Y
John Rice (Alderman)	ASBC	Y	Setti Warren	Mayor	---
Robert Rooney (COO)	ASBC Chair	Y			
Steven Siegel	ASBC	Y	Sal Salvucci	Alderman	Y
Claire Sokoloff	ASBC	Y	Deb Crossley	Alderman	Y
Jonathan Yeo	ASBC, DRC	Y			
Ouida Young (Law Dept)	ASBC	Y	Jeffery Luxenberg	JLA	Y
Alex Valcarce (Public Bldgs)	ASBC	Y	David Krawitz	JLA	Y
			Melissa Gagnon	JLA	Y
			Ken DiNisco	DiNisco Design	Y
			Donna DiNisco	DiNisco Design	Y
			Leno Filippi	DiNisco Design	N

The meeting began at 5:05PM.

1. Introductions

Jeff Luxenberg introduced Donna DiNisco, Ken DiNisco and Leno Filippi of DiNisco Design Partnership. In addition, introductions were made by all attendees including Joslin, Lesser + Associates, the Angier School Building Committee, the Design Review Committee and City Alderman.



2. Overview of Construction Delivery Methods

JLA prepared and distributed a handout of the Comparison of Construction Delivery Methods. Jeff Luxenberg presented in detail the relative merits including advantages and disadvantages of the following construction delivery methods: Design-Bid-Build (MGL Chapter 149) and Construction Manager at Risk (MGL Chapter 149A). The project parameters were discussed, including the topic of negotiation of the GMP with regard to hazardous materials. Following review and discussion, the ASBC and DRC determined that the CM at Risk delivery method would be beneficial for a project of this complexity. The following motions and votes were made:

**MOTION:** L. Gentile, seconded by R. Fuller, proposed to agree with the recommendation of Joslin Lesser in starting out with a CM at Risk at least for the pre-construction phase of the project with the option to go to Chapter 149.

**(11) ASBC members voted in favor to authorize this budget revision request. The vote was unanimous.**

**MOTION:** A. Cohen, seconded by E. Light, proposed to agree with the recommendation of Joslin Lesser in starting out with a CM at Risk at least for the pre-construction phase of the project with the option to go to Chapter 149.

**(5) DRC members voted in favor to authorize this budget revision request. The vote was unanimous.**

3. Design Criteria Evaluation Matrix

JLA prepared and distributed a handout of the Options and Criteria Evaluation Matrix. David Krawitz noted this matrix is intended to serve as a framework for the City to review options that will be developed by the design team. It was noted that these criteria represent site strategy alternatives, strategies and approaches and are not design ideas. There could be many design solutions for any one option. David Krawitz provided a brief overview of the criteria in each of the categories.

JLA explained a preferred option will be submitted to the MSBA in mid-February. Options need to be flushed out within the next couple of weeks with the plan for the ASBC and the DRC to select a final option in January.

With regard to the discussion of other adjacent or remote site options, the City noted the adjacent playing field has a deed restriction and the City owns part of this property as part of Newton Parks and Recreation. To obtain the use of this property for the school project, it was explained there would be an approvals process and approval would be needed by the General Court. The City noted that the Lincoln playground does not have any trust issues, although the property is owned by Newton Parks and Recreation. It was agreed that at this time DiNisco will develop options for the Angier site only which correlate to options 2A, 2B and 3 on the Options and Criteria Evaluation Matrix. Options for a remote site and an adjacent site will not be pursued at this time (options 4A and 4B).

Ken DiNisco noted that building on the Lincoln playground could have significant drawbacks.

A member of the DRC suggested adding the use of operable windows and IAQ (Indoor Air Quality) to the list of criteria in the Building category.

4. Other Business

Ken DiNisco noted much of the understanding of the program needs to happen to design the building. There needs to be an agreement on the program. It was noted that October 25 was too soon to present the educational program and it was suggested a later meeting date be scheduled.

It was noted that for the public forum there could be a presentation of the advantages and disadvantages and potential issues. The intent of the forum is to have an informational meeting for the community. A member of the ASBC and the DRC noted the educational program is needed prior to the public forum.

Alderman Gentile noted the project team should be aware of the proposed project at Riverside which could impact the number of students in the Angier ES district.

5. Upcoming Meetings

It was noted there would not be an ASBC+DRC meeting on October 25. The next ASBC+DRC meeting will be on November 8 and a public forum on November 15. The City will determine a location and JLA will prepare a flyer for the Public Forum.

6. Adjournment

There being no further business to come before the meeting, the meeting was adjourned at 6:45PM.

Respectfully submitted,

Melissa Gagnon  
Joslin, Lesser + Associates, Inc.

[End of 10/18/12 Meeting Minutes]

## Angier Elementary School – Newton, MA

### Angier School Building Committee & Design Review Committee Joint Meeting

Thursday, November 15, 2012

Newton Education Center, 100 Walnut Street, Room 210

5:00PM

## Agenda

### 1. Approval of ASBC+DRC Joint Meeting Minutes

- September 13, 2012
- October 18, 2012

### 2. Review Programming and Massing Alternatives

### 3. Review Schedule of Meetings and Deliverables

### 4. Other Business

### 5. Upcoming Meetings

- 8:00 PM          November 19 – ASBC/DRC joint meeting, presentation to BOA and SC
- 8:45 AM          November 29 - Working Group Meeting
- 5:00 PM          November 29 – ASBC/DRC joint meeting

<b>ANGIER ELEMENTARY SCHOOL – Newton, MA</b>	<b>MEETING MINUTES</b>
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<b>Angier School Building Committee (ASBC) + Design Review Committee (DRC) Joint Meeting</b>	
Date: November 15, 2012	Location: 100 Walnut Street, Room 210
Time: 5:00 PM	



Attendees:

<b>Name</b>	<b>Assoc.</b>	<b>Present</b>	<b>Name</b>	<b>Assoc.</b>	<b>Present</b>
Arthur Cohen	ASBC, DRC	Y	Peter Barrer	DRC	---
Michael Cronin	School Dept	Y	Mark Chudy	DRC	---
Theresa Fitzpatrick	ASBC	Y	Mitchell Fischman	DRC	Y
Ruthanne Fuller (Alderman)	ASBC	Y	Robert Franchi	DRC	---
Jennifer Hill	ASBC	Y	Jonathan Kantar	DRC	Y
Leonard Gentile (Alderman)	ASBC	---	Andrea Kelley	DRC	---
Stephanie Gilman	ASBC	Y	Ellen Light	DRC	---
Sandra Guryan	ASBC Co-Chair, DRC	Y			
Loreta Lamberti (Principal)	ASBC	Y	Victor Vitols	DRC	---
Maureen Lemieux (CFO)	ASBC	Y	Candace Havens	Planning Dir	Y
Joshua Morse (Public Bldgs)	ASBC	---	Carol Chafetz	School Dept.	Y
Nicholas Read	ASBC	Y	David Fleishman	Superintendent	---
Emily Prenner	ASBC, PTO	Y	Joseph Russo	Asst Super	Y
John Rice (Alderman)	ASBC	Y	Setti Warren	Mayor	---
Robert Rooney (COO)	ASBC Chair	Y			
Steven Siegel	ASBC	Y	Sal Salvucci	Alderman	Y
Claire Sokoloff	ASBC	Y	Deb Crossley	Alderman	Y
Jonathan Yeo	ASBC, DRC	Y			
Ouida Young (Law Dept)	ASBC	Y	Jeffery Luxenberg	JLA	Y
Alex Valcarce (Public Bldgs)	ASBC	Y	David Krawitz	JLA	Y
			Melissa Gagnon	JLA	Y
			Ken DiNisco	DiNisco Design	Y
			Donna DiNisco	DiNisco Design	Y
			Leno Fillipi	DiNisco Design	---

The meeting began at 5:15PM.

## 1. Review Programming and Massing Alternatives

JLA provided a brief introduction of the educational program and noted the program is not just a list of spaces but a representation of how education is delivered. It was noted that the program represents the broader substance of the program and is not specific to a building. It was noted that the current program

is a result of a series of meetings with a range of department heads as well as representatives from the School Department and the Superintendent's Office. In addition to determining the program, hierarchies and adjacencies were also reviewed at these meetings.

#### **Educational Program**

DiNisco Design (DDP) presented the breakdown of the Educational Program per the following categories: Core Academic, Special Education, Art & Music, Health & PE, Library, Dining & Food Service, Medical, Administrative & Guidance and Custodial & Maintenance. DDP noted per the programming meetings it was noted break out space is needed in the general classrooms to support the SPED program. It was noted that the current SF is 1,598 over the MSBA guidelines; it was also noted this number may shift slightly as the design is developed. There 18 general classrooms are based on 22 students/classroom in grades 1 and 2 and 25 students/classroom in grades 3 to 5. The Superintendent of Schools noted the Angier ES houses the City wide integrated program; this is unique to the Angier ES.

#### **Massing Alternatives**

DiNisco Design presented an overview of design approaches. It was noted that the Lincoln playground and the St. Phillips Church (which is not currently on the market) have been identified as alternate sites within the Angier ES district. The City noted that these sites are restricted by under Article 97 and are likely to have a time impact to the project. It was noted that the field adjacent to the Angier ES is deeded although a portion of the property may be able to be used for parking. DDP provided an overview of the Angier ES neighborhood and highlighted distinctive features. It was noted that all the design alternatives incorporate a piece of land adjacent to the MBTA which would need to be reclaimed to be used for parking and/or building. It was noted that the all current alternatives include parking for 70 cars. The following alternatives were presented: [A.1] Renovation/Addition, [A.2] Renovation/Addition, [A.3] Renovation/Addition (core addition at Beacon Street), [B] New Construction (3 story, interior courtyard), [B.1] New Construction (3 story, interior courtyard), [C] New Construction (3 story, exterior courtyard) and [D] New Construction. For reference, massing first floor plans are attached for all alternatives presented. Additional presentation documents are on file.

Following the presentation was a discussion of the various approaches. Discussion points included the following: requirement for 360 degree access for the Fire Department, classroom geometry would be different in the renovation vs the new construction scheme and although thought to be intriguing, the consensus was the bridge scheme [A.3] could have inherent security concerns and logistically may not work for an elementary school, the Angier ES is a neighborhood school and a gathering space for parents is important. It was noted that the Library could be centrally located with a sense of transparency. It was also noted that the orientation of the building has day lighting implications and north-south classroom orientation is important. There was a preference to have the gymnasium located closer to the street with the cafetorium closer to the field. The consensus was that a combination of schemes [B.1] and [D] would be desirable and the courtyard should have a purpose.

## **2. Adjournment**

There being no further business to come before the meeting, the meeting was adjourned at 7:45PM.

Respectfully submitted,

Melissa Gagnon  
Joslin, Lesser + Associates, Inc.

[End of 11/15/12 Meeting Minutes]



## Angier Elementary School – Newton, MA

### Angier School Building Committee & Design Review Committee Joint Meeting

Thursday, November 29, 2012

Newton Education Center, 100 Walnut Street, Room 210

5:00PM

## Agenda

### 1. Approval of ASBC+DRC Joint Meeting Minutes

- September 13, 2012
- October 18, 2012

### 2. Review Site Strategy and Design Massing Alternatives

### 3. Review Evaluation Criteria

### 4. Review Schedule of Meetings and Deliverables

### 5. Other Business

### 6. Upcoming Meetings

- 5:00 PM      December 08 - ASBC/DRC joint meeting
- 7:00 PM      December 10 - Meeting with School Committee
- 5:00 PM      December 13 - ASBC/DRC joint meeting



<b>ANGIER ELEMENTARY SCHOOL – Newton, MA</b>	<b>MEETING MINUTES</b>
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<b>Angier School Building Committee (ASBC) + Design Review Committee (DRC) Joint Meeting</b>	
Date: November 29, 2012	Location: 100 Walnut Street, Room 210
Time: 5:00 PM	



Attendees:

<b>Name</b>	<b>Assoc.</b>	<b>Present</b>	<b>Name</b>	<b>Assoc.</b>	<b>Present</b>
Arthur Cohen	ASBC, DRC	Y	Peter Barrer	DRC	Y
Michael Cronin	School Dept	Y	Mark Chudy	DRC	---
Theresa Fitzpatrick	ASBC	Y	Mitchell Fischman	DRC	Y
Ruthanne Fuller (Alderman)	ASBC	Y	Robert Franchi	DRC	---
Jennifer Hill	ASBC	Y	Jonathan Kantar	DRC	Y
Leonard Gentile (Alderman)	ASBC	Y	Andrea Kelley	DRC	---
Stephanie Gilman	ASBC	---	Ellen Light	DRC	Y
Sandra Guryan	ASBC Co-Chair, DRC	Y			
Loreta Lamberti (Principal)	ASBC	Y	Victor Vitols	DRC	---
Maureen Lemieux (CFO)	ASBC	---	Candace Havens	Planning Dir	Y
Joshua Morse (Public Bldgs)	ASBC	---	Carol Chafetz	School Dept.	Y
Nicholas Read	ASBC	Y	David Fleishman	Superintendent	---
Emily Prenner	ASBC, PTO	Y	Joseph Russo	Asst Super	Y
John Rice (Alderman)	ASBC	Y	Setti Warren	Mayor	---
Robert Rooney (COO)	ASBC Chair	---			
Steven Siegel	ASBC	Y	Sal Salvucci	Alderman	Y
Claire Sokoloff	ASBC	Y	Deb Crossley	Alderman	Y
Jonathan Yeo	ASBC, DRC	Y			
Ouida Young (Law Dept)	ASBC	Y	Jeffery Luxenberg	JLA	Y
Alex Valcarce (Public Bldgs)	ASBC	Y	David Krawitz	JLA	Y
			Melissa Gagnon	JLA	---
			Ken DiNisco	DiNisco Design	Y
			Donna DiNisco	DiNisco Design	---
			Leno Fillipi	DiNisco Design	Y

The meeting began at 5:05PM.

1. Approval of the Minutes from the September 13, 2012 ASBC+DRC Joint Meeting

**MOTION:** A. Cohen moved, seconded by J. Yeo that the Committees vote to approve the September 13, 2012 meeting minutes. **Votes were unanimous.**

2. Approval of the Minutes from the October 18, 2012 ASBC+DRC Joint Meeting

**MOTION:** A. Cohen moved, seconded by J. Yeo that the Committees vote to approve the October 18, 2012 meeting minutes. **Votes were unanimous.**

3. Review Site Strategy and Design Massing Alternatives

The design alternatives presented at the previous meeting on November 15 were briefly summarized (recap) and the new alternative was presented and discussed at length. The relative merits of the two viable site strategies were reviewed in detail using the Options Evaluation Matrix, and it was determined that the option to demolish the existing school and build a new school on the same site was clearly preferable and would better serve the educational needs of the Newton Public Schools and allow the intent and specifics of the program to be realized. For reference, massing first floor plans are attached for all alternatives presented. Additional presentation documents are on file.

4. Review Evaluation Criteria

It was noted there were a few discrepancies between the labels on the DiNisco drawings and the Options and Criteria Evaluation Matrix. DiNisco should re-label all drawings to be consistent with the Matrix Proposed Site Strategy Alternative headings. Refer to attached revised Matrix as approved at this meeting.

**MOTION:** J. Yeo moved, seconded by E. Prenner that the Committees vote to recommend that the project team should proceed to develop Option B: Full demolition of the existing building and construction of a new Angier Elementary School on the same site.

**Votes were as follows: (9) in favor, (1) abstention and (0) not in favor**

5. Adjournment

**MOTION:** A. Cohen moved, seconded by J. Yeo that the meeting be adjourned. **Votes were unanimous.**

Respectfully submitted,

Melissa Gagnon  
Joslin, Lesser + Associates, Inc.

[End of 11/29/12 Meeting Minutes]



## Angier Elementary School – Newton, MA

### Angier School Building Committee & Design Review Committee Joint Meeting

Thursday, December 20, 2012

100 Walnut Street, Room 210

5:00PM

## Agenda

### 1. Approval of ASBC+DRC Joint Meeting Minutes

- November 15, 2012
- November 29, 2012

### 2. Vote to Approve Submittal of PDP

### 3. Design Update

### 4. Public Information Sessions

- January 10
- February (date TBD)

### 5. Review Milestone and Meeting Schedule

### 6. Other Business

### 7. Upcoming Meetings

- Time TBD      January 10 - ASBC/DRC joint meeting; presentation to Aldermen and SC;  
Public Input
- 5:00 PM      January 31 - ASBC/DRC Joint Meeting

<b>ANGIER ELEMENTARY SCHOOL – Newton, MA</b>	<b>MEETING MINUTES</b>
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<b>Angier School Building Committee (ASBC) + Design Review Committee (DRC) Joint Meeting</b>	
Date: December 20, 2012	Location: 100 Walnut Street, Room 210
Time: 5:00 PM	



Attendees:

<b>Name</b>	<b>Assoc.</b>	<b>Present</b>	<b>Name</b>	<b>Assoc.</b>	<b>Present</b>
Arthur Cohen	ASBC, DRC	---	Peter Barrer	DRC	Y
Michael Cronin	School Dept	Y	Mark Chudy	DRC	---
Theresa Fitzpatrick	ASBC	Y	Mitchell Fischman	DRC	---
Ruthanne Fuller (Alderman)	ASBC	Y	Robert Franchi	DRC	---
Jennifer Hill	ASBC	---	Jonathan Kantar	DRC	Y
Leonard Gentile (Alderman)	ASBC	---	Andrea Kelley	DRC	---
Stephanie Gilman	ASBC	Y	Ellen Light	DRC	Y
Sandra Guryan	ASBC Co-Chair, DRC	Y			
Loreta Lamberti (Principal)	ASBC	Y	Victor Vitols	DRC	---
Maureen Lemieux (CFO)	ASBC	---	Candace Havens	Planning Dir	Y
Joshua Morse (Public Bldgs)	ASBC	---	Carol Chafetz	School Dept.	Y
Nicholas Read	ASBC	Y	David Fleishman	Superintendent	---
Emily Prenner	ASBC, PTO	Y	Joseph Russo	Asst Super	Y
John Rice (Alderman)	ASBC	Y	Setti Warren	Mayor	---
Robert Rooney (COO)	ASBC Chair	Y			
Steven Siegel	ASBC	Y	Sal Salvucci	Alderman	---
Claire Sokoloff	ASBC	Y	Deb Crossley	Alderman	---
Jonathan Yeo	ASBC, DRC	Y			
Ouida Young (Law Dept)	ASBC	Y	Jeffery Luxenberg	JLA	Y
Alex Valcarce (Public Bldgs)	ASBC	---	David Krawitz	JLA	Y
			Melissa Gagnon	JLA	---
			Ken DiNisco	DiNisco Design	Y
			Donna DiNisco	DiNisco Design	Y
			Leno Fillipi	DiNisco Design	---

The meeting began at 5:08PM.

1. Approval of the Minutes from the November 15, 2012 ASBC+DRC Joint Meeting

**MOTION:** R. Fuller moved, seconded by J. Yeo that the ASBC vote to approve the November 15, 2012 meeting minutes. **The vote was unanimous.**

**MOTION:** E. Light moved, seconded by P. Barrer that the DRC vote to approve the November 15, 2012 meeting minutes. **The vote was unanimous.**

Approval of the Minutes from the November 29, 2012 ASBC+DRC Joint Meeting

**MOTION:** R. Fuller moved, seconded by J. Yeo that the ASBC vote to approve the November 29, 2012 meeting minutes. **The vote was unanimous.**

**MOTION:** E. Light moved, seconded by P. Barrer that the DRC vote to approve the November 29, 2012 meeting minutes. **The vote was unanimous.**

2. Vote to Approve Submittal of Preliminary Design Program (PDP) to the MSBA

JLA provided an overview of what documents are included in the PDP submission. It was noted that the Education Program and Space Summary were approved by the School Committee. The Executive Summary of the PDP was reviewed by the Working Group and sent to the ASBC and DRC members for review in advance of this meeting. JLA plans to submit the PDP as soon as possible to provide the MSBA time to review and provide comments prior to the Feasibility Report submission on February 14, 2012. In addition to hardcopies provided to the City, the final PDP submission will be posted to the City's website.

**MOTION:** J. Yeo moved, seconded by E. Prenner that the Committees vote to approve the submission of the PDP to the MSBA. **The vote was unanimous.**

3. Design Update

JLA noted subsequent to the ASBC+DRC joint meeting on November 29, the working group has met and provided input which DiNisco has used to further refine and develop design options. To recap, DiNisco presented and reviewed earlier options B.1, B.2 and B.3. A new construction option B.4 was presented. It was noted there are some inherent flaws with this design which include the library in the middle of the building without access to natural daylight and views. There was consensus that the Administration space should be in a control position for supervision and oversight. It was noted that the team is currently in the process of coordinating with the MBTA regarding use of the land along the north property boundary of the site. Another new construction option B.5 was presented. This option has the Library centrally located on the 2<sup>nd</sup> floor with classrooms stacked, 8 on each floor (K/1, 2/3 and 4/5). There was some discussion regarding the merits of stacking the gymnasium over the cafeteria although it was noted that the gymnasium on the 1<sup>st</sup> floor should not be ruled out. It was noted that the Angier ES is not a voting location. There was also discussion whether all classrooms should be on the 2<sup>nd</sup> and 3<sup>rd</sup> floors with core spaces on the 1<sup>st</sup> floor. In summary, there was a consensus for the following:

- Parking in the back (buffers MBTA tracks), trees will need to be replaced to build the embankment
- Gymnasium in the back makes sense
- Open gathering area in front
- Administration area in front for visual supervision and connection to classrooms
- Cafetorium should be centrally located with a connection to a play area
- Preference for the library to be centrally located on the second floor

DiNisco will develop additional options to address the above comments and bring them to the Working Group meeting on January 3, 2012.

JLA provided a brief overview of upcoming milestones: January 10 presentation to the Board of Alderman and School Committee as well as input from the Public, January 17 a working group meeting and on January 31 the option will be worked out for the ASBC+DRC to vote to approve the Preferred Schematic Alternative. In mid-February there will be a Public Forum to present the preferred option.

4. Public Information Sessions

The logistics of planning the following public information sessions were discussed:

Thursday, January 10, 2013 at 6:00PM at Newton North High School (the City to confirm the availability of the Library) and Wednesday, February 13, 2013 at 6:00PM in the Angier ES. There was consensus that both events should be advertised on one flyer. JLA will prepare a draft of the flyer and distribute to the working group for review by noon time tomorrow. The plan is for the flyer to be distributed on Jan 4, after school resumes.

A member of the School Committee inquired about where project related documents are posted. JLA noted meeting agenda, minutes and presentation materials are currently posted to the City's website. JLA is working with the City to streamline the location so that the documents are more easily accessible.

5. Adjournment

**MOTION:** At 6:30PM, there being no further business to come before the meeting, T. Fitzpatrick moved, seconded by E. Prenner, that the meeting be adjourned. **The vote was unanimous.**

Respectfully submitted,

Melissa Gagnon  
Joslin, Lesser + Associates, Inc.

[End of 12/20/12 Meeting Minutes]